An INTELLIGENT COMPRESSED AIR® Product

Super Air Knife

Super Air Knife™

Quiet, hard-hitting curtain of air for blowoff, cleaning, drying, and cooling.

- ☑ **Surprisingly Quiet! - Only 69 dBA!**
- ☑ **Reduced Air Consumption!**
- ☑ **Uniform Airflow!**
- ☑ **40:1 Air Amplification!**

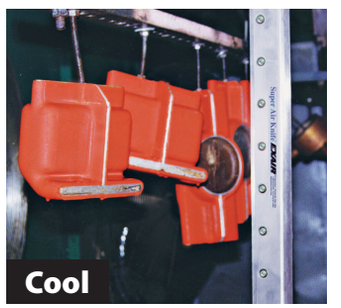
Also available from stock in Type 316 stainless steel and PVDF! For Corrosion Resistance

What Is The Super Air Knife?

EXAIR's Super Air Knife is the latest generation of our engineered air knife that dramatically reduces compressed air usage and noise when compared to other blowoffs. The Super Air Knife offers a more efficient way to clean, dry or cool parts, webs or conveyors. It delivers a uniform sheet of laminar airflow across the entire length with hard-hitting force.

Noisy blowoffs become a whisper when replaced with the compact Super Air Knife. Even at high pressures of 80 PSIG (5.5 BAR), the sound level is surprisingly quiet at 69 dBA for most applications! Air amplification ratios (entrained air to compressed air) of 40:1 are produced. Meets OSHA maximum dead-end pressure and noise requirements.

Built to Last 5 yr. WARRANTY
See our Terms & Conditions page for complete details.



Applications

- Part drying after wash
- Sheet cleaning in strip mills
- Conveyor cleaning
- Part or component cooling
- Web drying or cleaning
- Environmental separation
- Pre-paint blowoff
- Bag opening/filling operations
- Scrap removal on converting operations

Advantages

- Quiet - 69 dBA for most applications
- Minimal air consumption
- 40:1 air amplification
- Uniform airflow across entire length
- Variable force and flow
- No moving parts - maintenance free
- Easy mounting - compressed air inlets on each end and bottom
- Compact, rugged, easy to install
- Recessed hardware
- Stock lengths to 108" (2743mm) in aluminum, 303 stainless steel, and 316 stainless steel (ss - for temperatures up to 800°F (427°C), food processing or or corrosive environments), and PVDF up to 54" (1372mm) for superior corrosion resistance.
- Special lengths available
- Unlimited system lengths of uninterrupted airflow available

For Technical Assistance, Call An EXAIR Application Engineer 1-800-903-9247
Toll Free FAX (866) 329-3924 • E-mail: techelp@exair.com • www.exair.com

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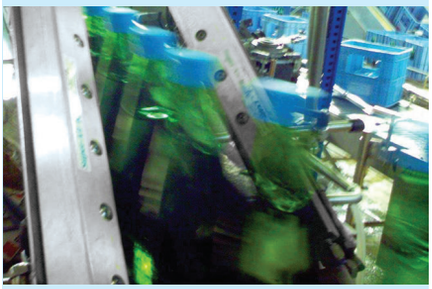
Dry

The laminar airflow of the Super Air Knife is perfect for removing moisture prior to packaging, painting, labeling, bar coding and assembly. Common applications include drying parts, rolled steel, circuit boards, webs, bottles, cans and more. Velocity is easily adjusted from a "blast" to a "breeze" with a pressure regulator.



Fast moving bottles are blown dry by (2) Model 110012 12" (305mm) Super Air Knives prior to labeling.

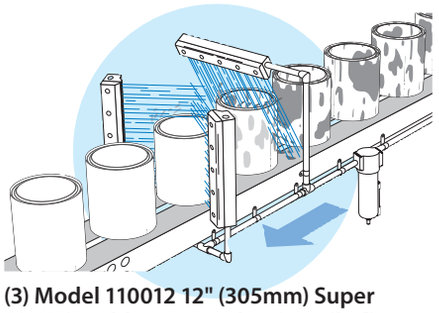
Model 110006 6" (152mm) Super Air Knife removes residual water from can bottoms after a rinse process, eliminating water damage to packaging and shipping materials.

Model 110054 54" (1372mm) Super Air Knife dries stamped parts that exit a washer.

Blowoff

The Super Air Knife is ideal for blowing off chips, dirt or water from parts, webs or conveyors. It delivers a uniform sheet of air that has the same force across the entire length. There are no interruptions or "dead spots", which means all surfaces are dried or cleaned. The Super Air Knife is available in aluminum, stainless steel, or PVDF for corrosive and high temperature applications.

A Model 110048PKI 48" (1219mm) Super Air Knife with Plumbing Kit installed uses EXAIR's Universal Air Knife Mounting System to maintain proper position for removing dust on a conveyor belt and eliminate carryover accumulation.



(3) Model 110012 12" (305mm) Super Air Knives blow excess honing oil off machined engine sleeves.

Cool

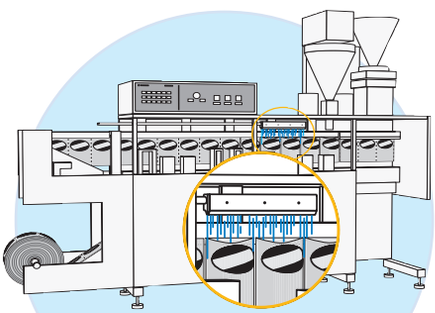
Large volumes of airflow can be generated in very tight spaces due to the compact size of the Super Air Knife. Flow and force are easily controlled with a pressure regulator, allowing fast or gradual cooling. Shims can be installed if additional hard-hitting velocity is required.

A Model 110018 18" (457mm) Super Air Knife cools molded plastic following dip molding.

With a 40:1 air amplification ratio, a high volume of airflow is the result from minimal air input to keep linear induction motors from overheating.

Open, Float, Separate

The uniform airflow exits the Super Air Knife in a perfectly straight line (does not deflect). It is ideal for opening bags and pouches, floating webs, and keeping environments separate.



A Model 110006 6" (152mm) Super Air Knife opens pouches on a form-fill-seal-bagger.

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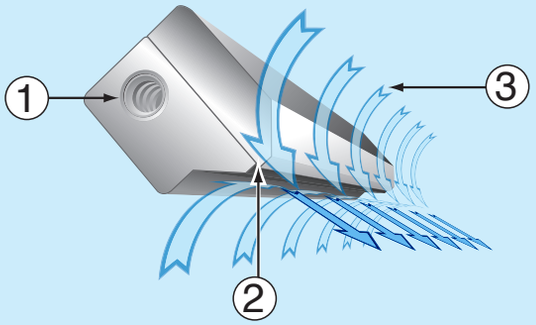
Super Air Knife

How The Super Air Knife Works



Compressed air flows through an inlet (1) into the 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 follows a flat surface that 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.

Intelligent Use Of Compressed Air

Almost every industrial facility has at least one compressor that is used for hundreds of different tools, equipment and operations. While most applications for compressed air present no real problems, some do. Improper use can translate into unnecessary energy costs, high noise levels and dangerous exposure of personnel to high pressure air.

Reduce Energy Costs

The best way to cut energy costs is through proper maintenance and use of the compressed air system. Leaks and dirty filters require maintenance on a regular basis. Energy savings can also be realized when replacing outdated motors and controls with high efficiency models that often pay for themselves in a short period of time. The most important factor to dramatically boost efficiency is to use proper compressed air products. **The Super Air Knife uses only 1/3 of the compressed air of typical blowoffs.**

Reduce Noise Levels

High noise levels are a common problem for many plants. Compressed air noise often exceeds OSHA (Occupational Safety and Health Administration) noise level exposure requirements, resulting in hearing loss to those working in close proximity. The sound level of the Super Air Knife is quiet at 69 dBA, even at high pressures of 80 PSIG (5.5 BAR). Using the Super Air Knife, it is possible to obtain hard-hitting force without the high noise.

OSHA Maximum Allowable Noise Exposure							
Hours per day (constant noise)	8	7	4	3	2	1	0.5
Sound level dBA	90	91	95	97	100	105	110

OSHA Standard 29 CFR - 1910.95 (a)

Eliminate Harmful Dead End Pressures

Air can be dangerous when the outlet pressure of a hole, hose or copper tube is higher than 30 PSIG (2 BAR). In the event the opening is blocked by a hand or other body part, air may enter the bloodstream through the skin, resulting in a serious injury. The Super Air Knife has been engineered for safety and cannot be dead-ended. It is safe to operate at higher pressures and complies with OSHA standard 1910.242(b).

Replacement For Expensive, Noisy Blowers

Energy conscious plants might think a blower to be a better choice due to its slightly lower electrical consumption compared to a compressor. In reality, a blower is an expensive capital expenditure that requires frequent downtime and costly maintenance of filters, belts and bearings.

Here are some important facts:

- Filters must be replaced every one to three months.
- Belts must be replaced every three to six months.
- Blower bearings wear out quickly due to the motor that must turn at 17,000-20,000 RPM in order to generate effective airflows.
- Poorly designed seals that allow dirt and moisture infiltration along with environments above 125°F (52°C) decrease the one year bearing life.
- **Typical bearing replacement is at least once a year at a cost near $1000.**
- Many bearings can't be replaced in the field, resulting in downtime to send the assembly back to the manufacturer.
- Many blowers generate heat, making conditions uncomfortable and difficult to use for cooling applications.

Blowers take up a lot of space and often produce sound levels that exceed OSHA noise level exposure requirements. Air volume and velocity are often difficult to control since mechanical adjustments are required.

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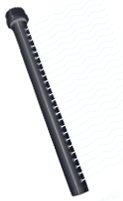
Compare These Blowoffs

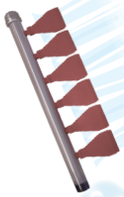
There are a variety of ways to blow the water from the bottles shown in the photo below, but which method is best? The following comparison of drilled pipe, flat air nozzles, a blower and the Super Air Knife proves that EXAIR has the best choice for your blowoff, cooling or drying application.

Our goal for each of the blowoff choices was to use the least amount of air possible to get the job done (lowest energy and noise level). Compressed air pressure required for each was 60 PSIG (4.1 BAR) which provided adequate velocity to blow the water off. The blower used had a ten horsepower electric motor and was a centrifugal type blower at 18,000 RPM. The table at the bottom of the page summarizes the overall performance. Since your actual part may have an odd configuration, holes or sharp edges, we took sound level measurements in free air (no impinging surface).



Drilled Pipe

This common blowoff is very inexpensive and easy to make. For this test, we used (2) drilled pipes, each with (25) 1/16" (1.6mm) diameter holes on 1/2" (13mm) centers. As shown in the test results below, the drilled pipe performed poorly. The initial cost of the drilled pipe is overshadowed by its high energy use. The holes are easily blocked and the noise level is excessive - both of which violate OSHA requirements. Velocity across the entire length was very inconsistent with spikes of air and numerous dead spots.



Flat Air Nozzles

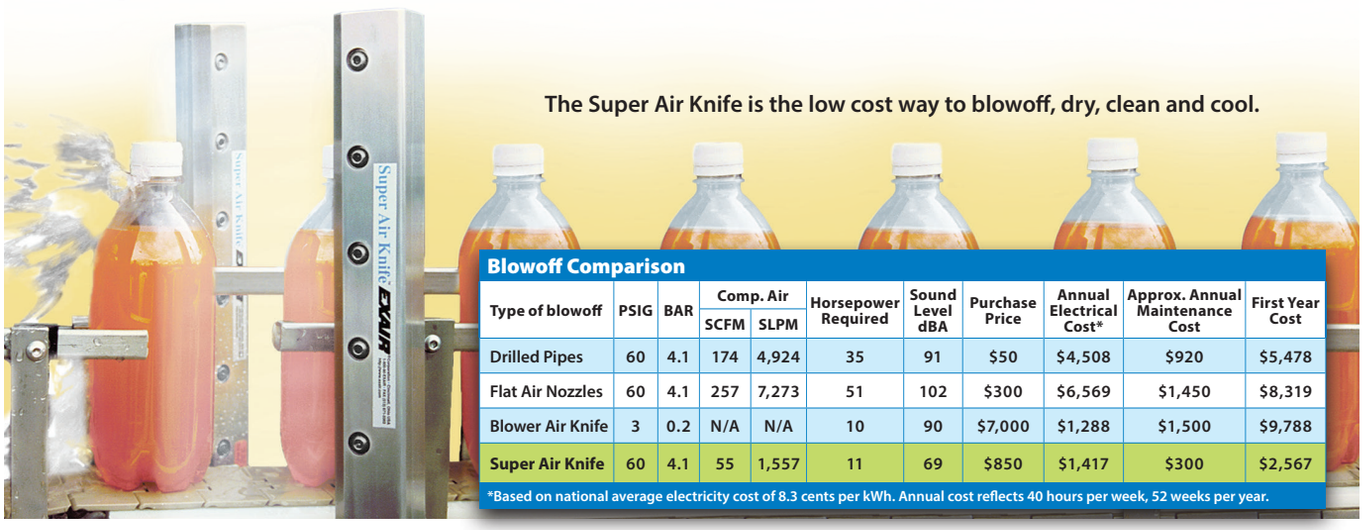
As shown below, this inexpensive air nozzle was the worst performer. It is available in plastic, aluminum and stainless steel from several manufacturers. The flat air nozzle provides some entrainment, but suffers from many of the same problems as the drilled pipe. Operating cost and noise level are both high. Some manufacturers offer flat air nozzles where the holes can be blocked - an OSHA violation. Velocity was inconsistent with spikes of air.

Blower Air Knife

The blower proved to be an expensive, noisy option. As noted below, the purchase price is high. Operating cost was considerably lower than the drilled pipe and flat air nozzle, but was comparable to the EXAIR Super Air Knife. The large blower with its two 3" (76mm) diameter hoses requires significant mounting space compared to the others. Noise level was high at 90 dBA. There was no option for cycling it on and off to conserve energy like the other blowoffs. Costly bearing and filter maintenance along with downtime were also negative factors.

EXAIR Super Air Knife

The Super Air Knife pair did an exceptional job of removing the moisture on one pass due to the uniformity of the laminar airflow. The sound level was extremely low at 69 dBA. For this application, energy use was slightly higher than the blower but can be less than the blower if cycling on and off is possible. Safe operation is not an issue since the Super Air Knife cannot be dead-ended. Maintenance costs are low since there are no moving parts to wear out.



The Super Air Knife is the low cost way to blowoff, dry, clean and cool.

Blowoff Comparison

Type of blowoff	PSIG	BAR	Comp. Air		Horsepower Required	Sound Level dBA	Purchase Price	Annual Electrical Cost*	Approx. Annual Maintenance Cost	First Year Cost
			SCFM	SLPM						
Drilled Pipes	60	4.1	174	4,924	35	91	$50	$4,508	$920	$5,478
Flat Air Nozzles	60	4.1	257	7,273	51	102	$300	$6,569	$1,450	$8,319
Blower Air Knife	3	0.2	N/A	N/A	10	90	$7,000	$1,288	$1,500	$9,788
Super Air Knife	60	4.1	55	1,557	11	69	$850	$1,417	$300	$2,567

*Based on national average electricity cost of 8.3 cents per kWh. Annual cost reflects 40 hours per week, 52 weeks per year.

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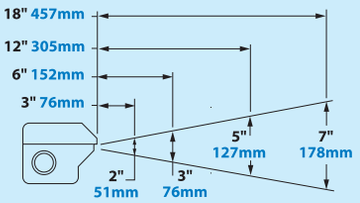
Super Air Knife

Super Air Knife Performance with .002" (0.05mm) thick shim installed

Pressure Supply		Air Consumption per Inch (25mm)		Velocity @ 6" (152mm) from target		Sound Level @ 3' (914mm)	Force per Inch (25mm) @ 6" (152mm) from target	
PSIG	BAR	SCFM	SLPM	FPM	M/S	dBA	OUNCES	GRAMS
20	1.4	1.1	31	5,000	25.4	57	0.6	17
40	2.8	1.7	48	7,000	35.6	61	1.1	31
60	4.1	2.3	65	9,600	48.8	65	1.8	51
80	5.5	2.9	82	11,800	59.9	69	2.5	71
100	6.9	3.5	99	13,500	68.5	72	3.2	91

12" (305mm) Super Air Knife tested

Airflow Pattern



Holes Drilled In Pipe

Pressure Supply		Air Consumption 1/16" (1.59mm) dia. hole		Air Consumption 3/32" (2.38mm) dia. hole		Air Consumption 1/8" (3.18mm) dia. hole		Air Consumption 3/16" (4.76mm) dia. hole		Air Consumption 1/4" (6.35mm) dia. hole	
PSIG	BAR	SCFM	SLPM	SCFM	SLPM	SCFM	SLPM	SCFM	SLPM	SCFM	SLPM
20	1.4	1.4	40	3.5	99	6.4	181	14.5	410	25	710
40	2.8	2.2	62	5.4	153	10.2	289	22.9	648	40	1,132
60	4.1	3.0	85	7.4	209	14	396	31	877	54	1,528
80	5.5	3.8	108	9.4	266	17.5	495	39.5	1,118	69	1,953
100	6.9	4.6	130	11.5	326	21.5	609	47.5	1,344	84	2,363

Super Air Knife Specifications

The Super Air Knife is available in standard lengths of 3", 6", 9" 12", 18", 24", 30", 36", 42", 48", 54", 60", 72", 84", 96" and 108". **Special lengths and unlimited system lengths are available.** Any number of Super Air Knives may be installed across a given area.

Compressed Air Inlets: A Super Air Knife has compressed air inlets on each end and the bottom. Knives 24"-47" should use the 2 inlets at opposite ends of the knife. Knives 48"-59" use 2 inlets at opposite ends plus 1 near the middle on the bottom of the knife. Knives 60"-83" use 2 inlets at opposite ends plus 2 inlets equally spaced on the bottom of the knife. Knives 84" and longer use 2 inlets at opposite ends plus 3 inlets equally spaced on the bottom of the knife.

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 Super Air Knife is available from stock in aluminum, Type 303 stainless steel, Type 316 stainless steel and PVDF. Other materials are available on special order.

Mounting: The Universal Air Knife Mounting System is shown on page 29. The Super Air Knife can be supported by the compressed air pipe. Tapped holes (1/4-20) on the bottom are also provided.

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: The compressed air exhausts through a gap which is set with a shim. Force and flow may be increased by adding shims. Shim sets for aluminum Super Air Knives include a .001" (0.03mm) ***Amber color***, ***.003" (0.08mm)***, ***Green color***, ***and .004" (0.10mm)*** thick **Tan color** plastic shims. A ***Red color*** ***.002" (0.05mm)*** thick shim comes installed in the Super Air Knife. Shim sets for stainless steel Super Air Knives include (3) .002" (0.05mm) stainless steel shims. PVDF Super Air Knife shim sets include (3) .002" (0.05mm) PTFE shims.

How To Calculate Air Savings:

The chart at the top of the page shows the air consumption of a Super Air Knife **per inch of length** (25mm) at various pressures. Comparable data is given for holes drilled in pipe.

To Determine Air Consumption for the Drilled Pipe

1. Determine the size of existing holes and supply pressure. From the chart, find air consumption per hole.
2. Multiply air consumption per hole times the number of holes to obtain total air consumption.

To Determine Air Consumption for the Super Air Knife

1. From the chart, find the air consumption per inch (25mm) at supply pressure and multiply by number of inches required.

Example:

1. Existing blowoff is 18" long pipe with 1/16" diameter holes on 1/2" spacing (37 holes), 80 PSIG supply. Air consumption from chart is 3.8 SCFM per hole. Total air consumption is 37 × 3.8 = 140.6 SCFM (3,981 SLPM).
2. Use 18" (457mm) Super Air Knife with standard .002" gap and 80 PSIG supply. Air consumption from chart is 2.9 SCFM per inch. Total air consumption is 18 × 2.9 = 52.2 SCFM (1,478 SLPM).
3. Compressed air saved = 140.6 SCFM - 52.2 SCFM = 88.4 SCFM (2,503 SLPM).
4. Most large plants know their air cost. If you don't know your actual cost, a reasonable average to use is $0.25 per 1,000 SCF (28,329 SL).
5. Dollars saved per hour = SCFM saved × 60 minutes x cost/1,000 SCF = 88.4 × 60 × $0.25/1,000
   = $1.33/hour
   = $53.20 per 40 hour week
   = $2,766.40 per year savings

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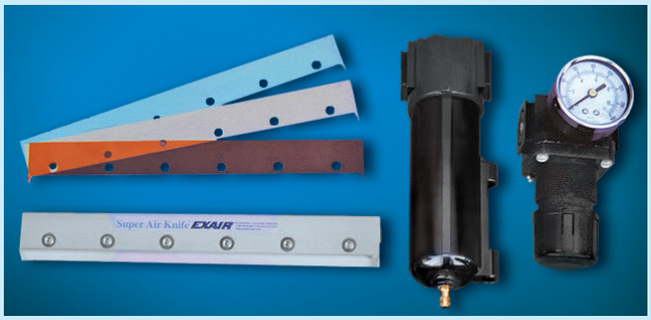
Changing Performance By Adding Shims

The Super Air Knife is shipped with a ***Red color*** ***.002" (0.05mm)*** thick shim installed, which works best for most applications. There are, however, some situations that require more force and flow. Thicker shims will increase the gap opening which offers higher velocity and harder hitting force. Air consumption and noise will be slightly higher. Shim sets are included with all kits or can be purchased separately.



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

Special Super Air Knives

EXAIR manufactures special Super Air Knives suited to specific application requirements. The shape, dimensions and materials of construction can be modified to fit existing machines and environments.

The curved stainless steel Super Air Knife *(shown top right)* was manufactured for a laboratory that uses the force of the airflow to hold test tubes in place on a rotating index table. They were able to eliminate the mechanical clips and latches that slowed the test tube removal. This holding method minimized risk of tube breakage and eliminated any chance of puncturing the technician's rubber gloves.

EXAIR manufactures special Super Air Knives made of plastic. These products are engineered to work under normal operating pressures, providing the same performance as their aluminum and stainless steel counterparts.

The PVC Super Air Knife *(shown 2nd from top right)* was manufactured for a picture tube plant. The softer material was less likely to scratch the picture tube surface and was chemically resistant to the phosphorus which coated the inside.

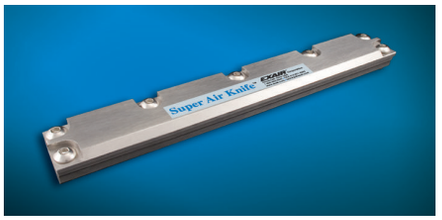
The flat Super Air Knife *(shown 3rd from top right)* is used in a molding machine for integrated circuit chips. Prior to molding the black plastic shells around the silicon wafers, they blow the mold cavity clean of any fine plastic fibers left by the previous cycle. The flat design constructed of corrosion resistant stainless steel was made to fit the tight space of the molding machine.

The double-sided Super Air Knife *(shown 2nd from bottom right)* provides two uniform sheets of air in opposite directions. It is ideal for blowing water from two or more columns of stacked parts (like printed circuit boards) as they are lifted out of a bath or the open halves of a mold. Each side operates independently.

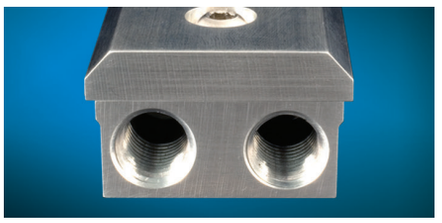
The Super Air Knife *(shown bottom right)* can be modified to include extra mounting holes to suit your application.

A special curved stainless steel Super Air Knife holds test tubes in place on a rotating index table.

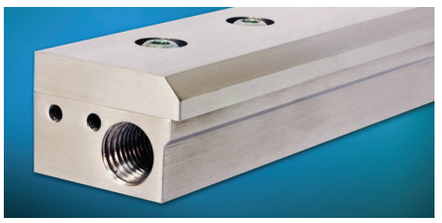
A PVC Super Air Knife designed to withstand a phosphorus environment.



A flat Super Air Knife, only 11/16" thick, blows plastic fibers from a mold used to make integrated circuit chips.



The double-sided Super Air Knife provides two uniform sheets of laminar airflow.



Stainless steel Super Air Knife modified to include extra mounting holes.

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Super Air Knife

Many Lengths Available From Stock in Four Materials

EXAIR's Super Air Knives are available from stock in many lengths and your choice of four materials. The force, flow and air pattern stay the same for each construction.

Aluminum

The aluminum Super Air Knife is suited to a wide variety of environments where corrosion or contamination is not a factor. The aircraft grade aluminum construction with plastic shim is very durable for general purpose applications. Stainless steel screws are used to eliminate corrosion in damp locations. It can withstand temperatures up to 180°F (82°C).

Type 303 Stainless Steel

This is the most common grade of stainless steel. It offers good strength and is best suited to mildly corrosive environments. It can withstand temperatures up to 800°F (427°C).

Type 316 Stainless Steel

Some applications require better corrosion resistance than offered by Type 303 stainless steel. Type 316 stainless steel offers excellent corrosion resistance, better strength properties and resists pitting. These factors are important to manufacturers of food, pharmaceutical and surgical products that need to minimize contamination by the metal. It can withstand temperatures up to 800°F (427°C).

PVDF (Polyvinylidene Fluoride)

EXAIR's Super Air Knife is also available from stock in PVDF (Polyvinylidene Fluoride). PVDF offers superior strength and is resistant to UV light, inorganic chemicals, solvents, ozone, weather, fungi, chlorinated hydrocarbons, highly corrosive acids, weak bases and salts. The PVDF Super Air Knife uses PTFE shims, Type 316 Stainless Steel pipe plugs, and Hastelloy® C-276 alloy screws to withstand harsh environments. The PVDF Super Air Knife is suitable for manufacturing processes that involve electroplating, solar cells, lithium ion batteries, transfer of acids and caustic chemicals, brine, solvent recovery, semiconductors, and medical devices. It can withstand temperatures up to 275°F (135°C).

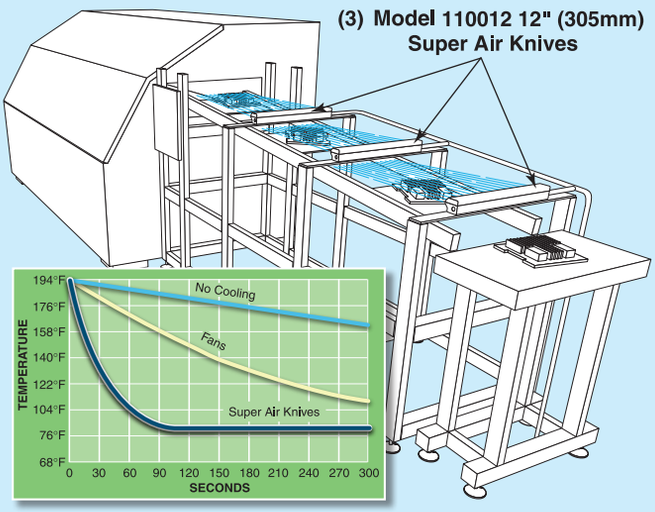
HASTELLOY is a registered trademark of Haynes International, Inc.

PVDF Super Air Knives provide superior corrosion resistance.

Super Air Knife Replaces Fan Cooling

The Problem: A manufacturer of automotive electronics had a problem cooling computers as they exited a wave solder machine. In order to be handled and tested, the computers had to first be cooled to 81°F (27°C). Initially, they had tried banks of 6" (152mm) diameter axial fans across the 8' (2.5m) length of the cooling conveyor. It consisted of 16 fans blowing down from the top and 16 fans blowing up from the bottom at 7" (178mm) away from the surface. After traveling the full length of the conveyor with the fans running at full force (a five minute duration), the computers were still 108°F (42°C). Quality control personnel sat with an unacceptable backlog of computers waiting to be tested.

The Solution: The company removed the top and bottom fan banks and replaced them with **(3) Model 110012 12" (305mm) Super Air Knives** that were evenly spaced across the cooling section. Each Super Air Knife was angled so the computer and heat sink received the constant rush of airflow. **With the conveyor at the same speed 1.6 FPM (0.5m/min), and Super Air Knives at only 40 PSIG (2.8 BAR), the computers were cooled to 81°F (27°C) in 90 seconds!**



Comment: The laminar airflow of the Super Air Knives was the key to success in this application. Fan cooling could only provide random spikes of air at moderate velocities. **The uniform sheet of air from the Super Air Knife quietly swept the heat away within the first 2' (610mm) of the conveyor.** Low air consumption and the compact size of the Super Air Knife were an added bonus.

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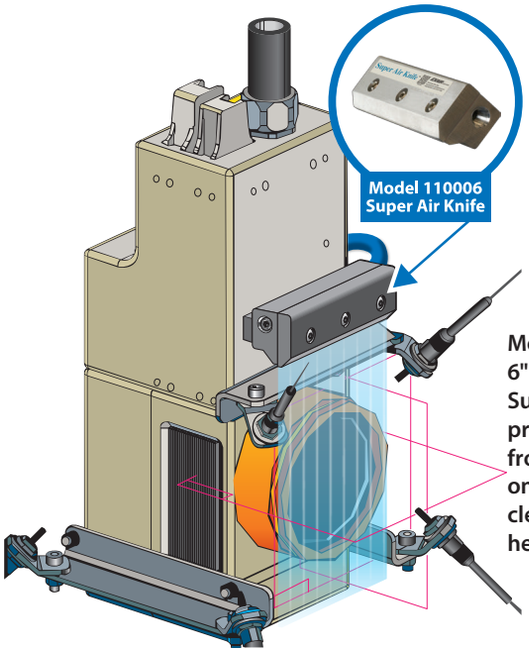
Air Shielding a Laser Lens



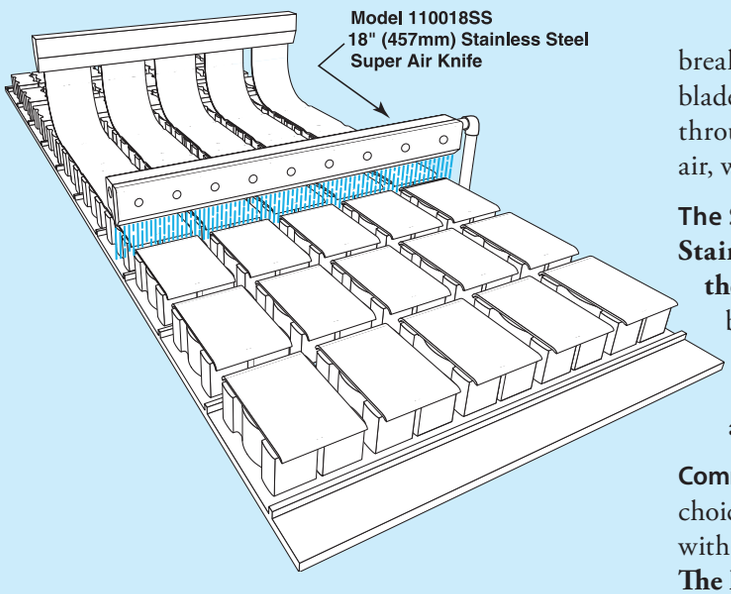
Model 110006 6" (152mm) Super Air Knife prevents debris from depositing on a laser cleaning head.

The Problem: A dirty lens can affect the quality of cameras, sensors and lasers. Today's visual inspection systems are highly accurate tools used to monitor dimensions, temperature, finish quality, labeling and much more. These products require clean lenses in order to provide the proper feedback to operators or other machinery within the process. The laser lens to the left is integral to a laser cleaning operation where a laser is used to clear away debris and provide a fresh surface. The laser cleaning operation in this case was creating debris which flew up and deposited onto the laser lens. Debris on the lens could affect the laser's cleaning quality or become burned upon the lens and create the need for a replacement lens.

The Solution: A Model 110006 6" (152mm) Super Air Knife was installed just above the laser lens to blow air down and across the lens. The sheet of air created an invisible barrier the contaminants could not penetrate and kept them from depositing onto the lens. The quality of the laser cleaning has been consistently good and the need for replacement lenses due to debris deposition has been eliminated.

Comment: An air barrier is a common application for a Super Air Knife and can create a non-contact wiper with little or no obstruction. They have been used in similar applications to prevent debris from getting to many different sensors or cameras, to retain heat within an oven, or to deflect mist from a machine tool.

Bakery Creates Clean Break In Icing



The Problem: A bakery had a problem applying the icing to their snack cakes. As the baked sponge cakes moved down the conveyor, a continuous ribbon of icing was applied to the individual cakes. Trying to make a clean break in the icing was next to impossible. Mechanical blades required constant cleaning. Compressed air through a series of holes in drilled pipe used too much air, was noisy and didn't make a clean break in the icing.

The Solution: A Model 110018SS 18" (457mm) Stainless Steel Super Air Knife was installed across the conveyor. A photo eye is used to detect the space between the cakes and turn the compressed air on at the precise moment to apply uniform airflow and velocity against the ribbon of icing, creating a nice, clean break.

Comment: The Stainless Steel Super Air Knife was the best choice for this application. Since there was no contact with the icing, no additional cleaning was required. **The laminar flow of the Super Air Knife has uniform velocity across the entire length and broke the ribbon of icing evenly.** This would never have been possible with the spikes of air from a drilled pipe, nozzles or a blower.

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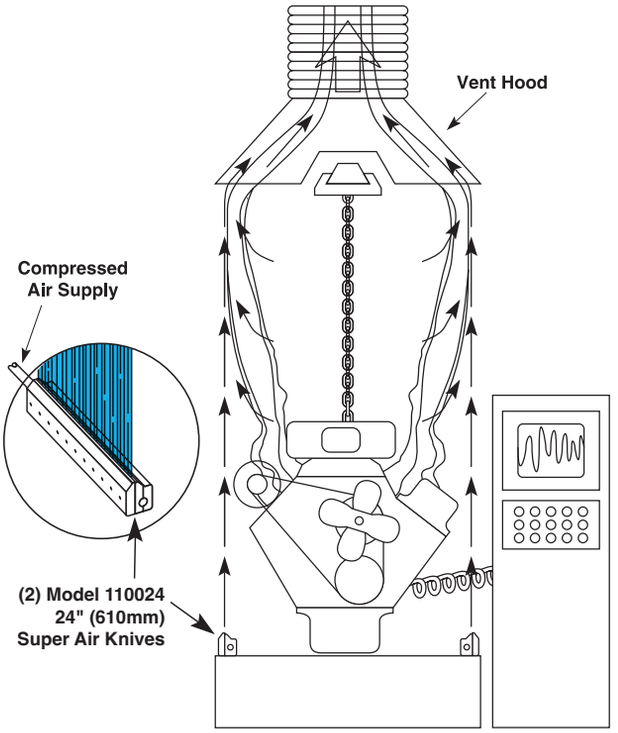
Super Air Knife

Smoke Containment During Engine Test



The Problem: The last step in an engine assembly process is "burn-in" on a test stand. Each engine is connected to a dynamometer and run for a period of one to five minutes. Residual machining oil on the head produced smoke during the test, and the vent hood at the top of the stand had insufficient capacity to contain it.

The Solution: A Model 110024 24" (610mm) Super Air Knife was mounted on both sides of the test stand. The sheet or "wall" of air produced by **the Super Air Knife, captured, contained and diluted the smoke while directing it towards the vent hood.** The environmental problem was solved without obstructing the technician's observation of, or access to the stand.

Comment: The use of the Super Air Knife for containment and separation is becoming increasingly common. The advantage, as illustrated here, is the ability of the Super Air Knife to create a screen or barrier with no obstruction. Other typical applications in this mode are:

- Retaining heat in curing and drying ovens
- Protecting workers from coolant splatter
- Isolating industrial camera lenses from airborne contaminants

Drying Crates Following a Washing Operation

The Problem: A bottling plant places their filled bottles into plastic crates as a final step of their process. When the empty plastic crates are returned from the various retail markets, they must first be washed and sanitized prior to using them again. When the bottler put the crates through the washer, they exited the final rinse dripping wet. Bottles placed in the wet crates were eventually covered with water spots and many product labels were ruined.

The Solution: The company installed (3) **Model 110018 18" (457mm) Super Air Knives** to completely surround and blowoff the crates. Each Super Air Knife was placed on an angle with the sheet of air blowing against the travel of the crates and directing the water downward toward the floor. The crates were dried and the bottles could be loaded immediately.

Comment: Super Air Knives were the best choice for this application. The uniform sheet of laminar airflow provided complete coverage so there were no dead spots when blowing across the inside and outside surfaces of the crate. The mounting used made it easy to rearrange and adjust the Super Air Knife depending on the size of the crate. Other companies have used a similar arrangement of the Super Air Knives to blowoff car batteries, blocks of cheese, milk cartons, buckets, and more.

Three Model 110018 18" (457mm) Super Air Knives completely surround and blowoff crates so they can be loaded immediately.

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Universal Air Knife Mounting System

Provide Precise Positioning For Your Air Knife!

The Model 9060 Universal Air Knife Mounting System is used to provide secure, precise positioning for any of the EXAIR Air Knives. The Air Knife can quickly and easily be moved within close proximity of the part to improve effectiveness. It can be mounted on the top or bottom of most Air Knives (Super, Standard and Full-Flow Air Knives). The Mounting System has a durable, stainless steel construction that is suitable for a variety of industrial applications.

Model 9060 Universal Air Knife Mounting System

Air Knife Mounting System	
Model #	**Description**
9060	Universal Air Knife Mounting System

The mounting system can also be used with EXAIR Static Eliminators. For the Gen4 Super Ion Air Knife, it can be mounted on the top. Bottom mounting is possible on Gen4 Super Ion Air Knives that are 18" or longer. For the Gen4 Standard Ion Air Knife, it can be top mounted on any length. Bottom mounting is possible on Gen4 Standard Ion Air Knives that are 9" or longer.

The Mounting System can be articulated into any position and provides a maximum extension of 30". A 1/2" diameter hole is required for mounting. Alternatively, the bolt can be threaded directly into a 1/2"-13 tapped hole. For any style Air Knife that is 24" to 54", use (2) Universal Air Knife Mounting Systems. For knives 55" - 71", use (3). For 72" - 95", use (4). For knives 96" and over, use (5).

Air Knife Plumbing Kits

Super Air Knives that are 24" or longer must be supplied with compressed air at multiple inlets on the Air Knife. EXAIR's Air Knife Plumbing Kits make it easy to ensure proper airflow to each inlet. They provide properly sized compressed air hose or pipe and fittings to interconnect the bottom or end compressed air inlets for best performance. Plumbing kits for aluminum Super Air Knives include a pressure gauge to monitor pressure at the Super Air Knife, which is an indication of proper air supply. They also include nitrile/PVC hose and brass fittings. Plumbing kits for stainless steel Super Air Knives include cut to length type 316 stainless steel pipe and fittings and will also work on PVDF Super Air Knives.

Model 9076, 9077, 9078 and 9079 Plumbing Kits work with Aluminum Super Air Knives and provide the hose and fittings to couple the inlets for best performance.

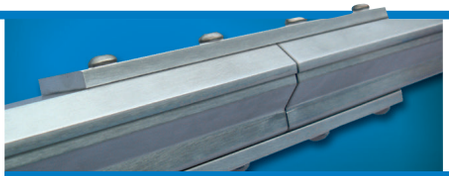
Plumbing Kits for Aluminum Super Air Knives	
Model #	**Description**
9076	Air Knife Plumbing Kit - for lengths up to 42" (1067mm)
9077	Air Knife Plumbing Kit - for lengths 48" - 54" (1219 - 1372mm)
9078	Air Knife Plumbing Kit - for lengths 60" - 84" (1524 - 2134mm)
9079	Air Knife Plumbing Kit - for lengths 90" - 108" (2286 - 2743mm)

Stainless Steel Plumbing Kits work with Stainless Steel Super Air Knives and provide the pipe and fittings to couple the inlets for best performance.

Plumbing Kits for Stainless Steel and PVDF Super Air Knives			
Model #	**Description**	**Model #**	**Description**
9240	For 24" (610mm) length	**9246**	For 60" (1524mm) length
9241	For 30" (762mm) length	**9247**	For 72" (1829mm) length
9242	For 36" (914mm) length	**9248**	For 84" (2134mm) length
9243	For 42" (1067mm) length	**9249**	For 96" (2438mm) length
9244	For 48" (1219mm) length	**9250**	For 108" (2743mm) length
9245	For 54" (1372mm) length		

Coupling Bracket Kits

Some applications require a Super Air Knife that is longer than our 108" (2743mm) length. Coupling Bracket Kits that join two Super Air Knives together are available. The kit includes two rigid plates along with the assembly screws. The bottom plate is supplied with a hole to access the bottom compressed air inlets. All models include stainless steel screws.



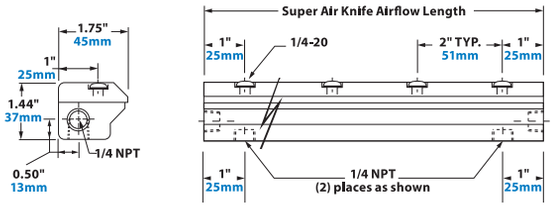
The Model 110900 Coupling Bracket Kit is used to join two aluminum Super Air Knives.

Air Knife Coupling Bracket Kit	
Model #	**Description**
110900	Aluminum Coupling Bracket Kit
110900SS	Type 303 Stainless Steel Coupling Bracket Kit
110900SS-316	Type 316 Stainless Steel Coupling Bracket Kit

Super Air Knife

Aluminum Super Air Knife Dimensions

DOWNLOAD drawings at EXAIR.com



ONE PIECE CONSTRUCTION

Super Air Knife Only				
Airflow Length	Aluminum Model	Type 303SS Model	Type 316SS Model	PVDF Model
3" (76mm)	110003	110003SS	110003SS-316	110003-PVDF
6" (152mm)	110006	110006SS	110006SS-316	110006-PVDF
9" (229mm)	110009	110009SS	110009SS-316	110009-PVDF
12" (305mm)	110012	110012SS	110012SS-316	110012-PVDF
18" (457mm)	110018	110018SS	110018SS-316	110018-PVDF
24" (610mm)	110024	110024SS	110024SS-316	110024-PVDF
30" (762mm)	110030	110030SS	110030SS-316	110030-PVDF
36" (914mm)	110036	110036SS	110036SS-316	110036-PVDF
42" (1067mm)	110042	110042SS	110042SS-316	110042-PVDF
48" (1219mm)	110048	110048SS	110048SS-316	110048-PVDF
54" (1372mm)	110054	110054SS	110054SS-316	110054-PVDF
60" (1524mm)	110060	110060SS	110060SS-316	N/A
72" (1829mm)	110072	110072SS	110072SS-316	N/A
84" (2134mm)	110084	110084SS	110084SS-316	N/A
96" (2438mm)	110096	110096SS	110096SS-316	N/A
108" (2743mm)	1100108	1100108SS	1100108SS-316	N/A

Type 303 and 316 Stainless Steel Super Air Knife Dimensions

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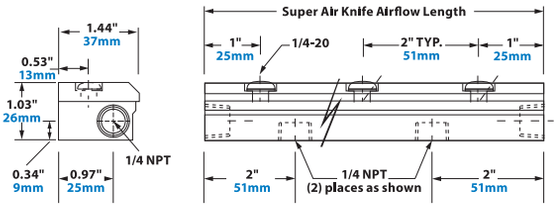
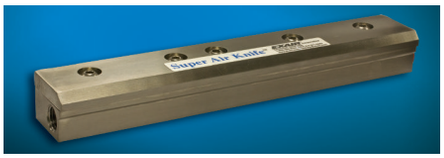


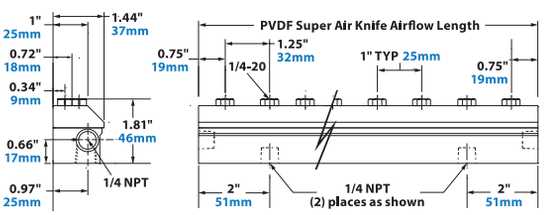


ONE PIECE CONSTRUCTION

Super Air Knife Kits				
Kits include a Super Air Knife, shim set, filter separator and pressure regulator (with coupler).				
Airflow Length	Aluminum Model	Type 303SS Model	Type 316SS Model	PVDF Model
3" (76mm)	110203	110203SS	110203SS-316	110203-PVDF
6" (152mm)	110206	110206SS	110206SS-316	110206-PVDF
9" (229mm)	110209	110209SS	110209SS-316	110209-PVDF
12" (305mm)	110212	110212SS	110212SS-316	110212-PVDF
18" (457mm)	110218	110218SS	110218SS-316	110218-PVDF
24" (610mm)	110224	110224SS	110224SS-316	110224-PVDF
30" (762mm)	110230	110230SS	110230SS-316	110230-PVDF
36" (914mm)	110236	110236SS	110236SS-316	110236-PVDF
42" (1067mm)	110242	110242SS	110242SS-316	110242-PVDF
48" (1219mm)	110248	110248SS	110248SS-316	110248-PVDF
54" (1372mm)	110254	110254SS	110254SS-316	110254-PVDF
60" (1524mm)	110260	110260SS	110260SS-316	N/A
72" (1829mm)	110272	110272SS	110272SS-316	N/A
84" (2134mm)	110284	110284SS	110284SS-316	N/A
96" (2438mm)	110296	110296SS	110296SS-316	N/A
108" (2743mm)	1102108	1102108SS	1102108SS-316	N/A

PVDF Super Air Knife Dimensions

DOWNLOAD drawings at EXAIR.com



ONE PIECE CONSTRUCTION

Deluxe Super Air Knife Kits				
Kits include a Super Air Knife, EFC, Universal Mounting System, shim set, filter separator and pressure regulator (with coupler).				
Airflow Length	Aluminum Model	Type 303SS Model	Type 316SS Model	PVDF Model
3" (76mm)	110203DX	110203SSDX	110203SSDX-316	N/A
6" (152mm)	110206DX	110206SSDX	110206SSDX-316	N/A
9" (229mm)	110209DX	110209SSDX	110209SSDX-316	N/A
12" (305mm)	110212DX	110212SSDX	110212SSDX-316	N/A
18" (457mm)	110218DX	110218SSDX	110218SSDX-316	N/A
24" (610mm)	110224DX	110224SSDX	110224SSDX-316	N/A
30" (762mm)	110230DX	110230SSDX	110230SSDX-316	N/A
36" (914mm)	110236DX	110236SSDX	110236SSDX-316	N/A
42" (1067mm)	110242DX	110242SSDX	110242SSDX-316	N/A
48" (1219mm)	110248DX	110248SSDX	110248SSDX-316	N/A
54" (1372mm)	110254DX	110254SSDX	110254SSDX-316	N/A
60" (1524mm)	110260DX	110260SSDX	110260SSDX-316	N/A
72" (1829mm)	110272DX	110272SSDX	110272SSDX-316	N/A
84" (2134mm)	110284DX	110284SSDX	110284SSDX-316	N/A
96" (2438mm)	110296DX	110296SSDX	110296SSDX-316	N/A
108" (2743mm)	1102108DX	1102108SSDX	1102108SSDX-316	N/A

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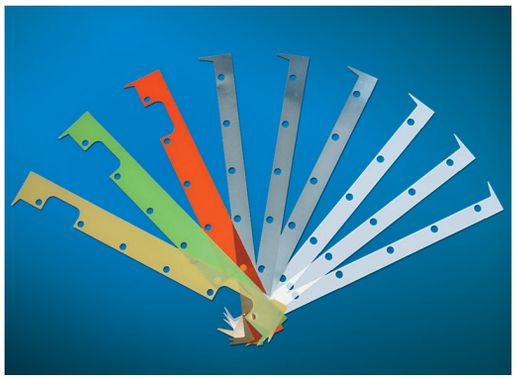
Super Air Knife Shim Sets

Shim sets for aluminum Super Air Knives include a .001" (0.03mm) ***Amber color***, .003" (0.08mm) ***Green color***, and .004" (0.10mm) thick ***Tan color*** plastic shim. A ***Red color*** .002" (0.05mm) thick shim comes installed in the Super Air Knife. Shim sets for stainless steel Super Air Knives include (3) .002" (0.05mm) thick stainless steel shims. PVDF Super Air Knife shim sets include (3) .002" (0.05mm) PTFE shims.

Airflow Length	Aluminum Model	Type 303SS Model	Type 316SS Model	PVDF Model
3" (76mm)	110303	110303SS	110303SS-316	110303-PVDF
6" (152mm)	110306	110306SS	110306SS-316	110306-PVDF
9" (229mm)	110309	110309SS	110309SS-316	110309-PVDF
12" (305mm)	110312	110312SS	110312SS-316	110312-PVDF
18" (457mm)	110318	110318SS	110318SS-316	110318-PVDF
24" (610mm)	110324	110324SS	110324SS-316	110324-PVDF
30" (762mm)	110330	110330SS	110330SS-316	110330-PVDF
36" (914mm)	110336	110336SS	110336SS-316	110336-PVDF
42" (1067mm)	110342	110342SS	110342SS-316	110342-PVDF
48" (1219mm)	110348	110348SS	110348SS-316	110348-PVDF
54" (1372mm)	110354	110354SS	110354SS-316	110354-PVDF
60" (1524mm)	110360	110360SS	110360SS-316	N/A
72" (1829mm)	110372	110372SS	110372SS-316	N/A
84" (2134mm)	110384	110384SS	110384SS-316	N/A
96" (2438mm)	110396	110396SS	110396SS-316	N/A
108" (2743mm)	1103108	1103108SS	1103108SS-316	N/A



Force and flow can be increased by installing additional shims that open the air gap.

Special length Super Air Knives are available. Magnetic bases with Stay Set™ flexible hoses are also available for smaller Super Air Knives. Please contact our factory.

Super Air Knives with Plumbing Kits Installed

EXAIR offers Super Air Knives in lengths from 24" (610mm) through 108" (2743mm) with Plumbing Kits that are shipped fully assembled. All components have been properly sized to obtain the best performance from the Super Air Knife.

Super Air Knife with Plumbing Kit

Super Air Knife with Plumbing Kit installed.

Airflow Length	Aluminum Model	Type 303SS Model	Type 316SS Model
24" (610mm)	110024PKI	110024SSPKI	110024SS-316PKI
30" (762mm)	110030PKI	110030SSPKI	110030SS-316PKI
36" (914mm)	110036PKI	110036SSPKI	110036SS-316PKI
42" (1067mm)	110042PKI	110042SSPKI	110042SS-316PKI
48" (1219mm)	110048PKI	110048SSPKI	110048SS-316PKI
54" (1372mm)	110054PKI	110054SSPKI	110054SS-316PKI
60" (1524mm)	110060PKI	110060SSPKI	110060SS-316PKI
72" (1829mm)	110072PKI	110072SSPKI	110072SS-316PKI
84" (2134mm)	110084PKI	110084SSPKI	110084SS-316PKI
96" (2438mm)	110096PKI	110096SSPKI	110096SS-316PKI
108" (2743mm)	1100108PKI	1100108SSPKI	1100108SS-316PKI

Super Air Knife Kit with Plumbing Kit

Super Air Knife Kit with Plumbing Kit installed.

Airflow Length	Aluminum Model	Type 303SS Model	Type 316SS Model
24" (610mm)	110224PKI	110224SSPKI	110224SS-316PKI
30" (762mm)	110230PKI	110230SSPKI	110230SS-316PKI
36" (914mm)	110236PKI	110236SSPKI	110236SS-316PKI
42" (1067mm)	110242PKI	110242SSPKI	110242SS-316PKI
48" (1219mm)	110248PKI	110248SSPKI	110248SS-316PKI
54" (1372mm)	110254PKI	110254SSPKI	110254SS-316PKI
60" (1524mm)	110260PKI	110260SSPKI	110260SS-316PKI
72" (1829mm)	110272PKI	110272SSPKI	110272SS-316PKI
84" (2134mm)	110284PKI	110284SSPKI	110284SS-316PKI
96" (2438mm)	110296PKI	110296SSPKI	110296SS-316PKI
108" (2743mm)	1102108PKI	1102108SSPKI	1102108SS-316PKI

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Super Air Knife

Accessories			
Model #	Description	Model #	Description
9001	Auto Drain Filter Separator, 3/8 NPT, 65 SCFM (1,841 SLPM)	9067	Pressure Regulator, 1-1/4 NPT, 700 SCFM (19,822 SLPM)
9032	Auto Drain Filter Separator, 1/2 NPT, 90 SCFM (2,549 SLPM)	9020	Solenoid Valve, 120V, 50/60Hz, 1/4 NPT, 40 SCFM (1,133 SLPM)
9002	Auto Drain Filter Separator, 3/4 NPT, 220 SCFM (6,230 SLPM)	9034	NEMA 4/4X Solenoid Valve, 120V, 50/60Hz, 1/2 NPT, 100 SCFM (2,832 SLPM)
9066	Auto Drain Filter Separator, 1-1/4 NPT, 400 SCFM (11,327 SLPM)	9036	NEMA 4/4X Solenoid Valve, 120V, 50/60Hz, 3/4 NPT, 200 SCFM (5,664 SLPM)
9005	Oil Removal Filter, 3/8 NPT, 15-37 SCFM (425-1,048 SLPM)	9065	NEMA 4/4X Solenoid Valve, 24VDC, 1 NPT, 350 SCFM (9,911 SLPM)
9006	Oil Removal Filter, 3/4 NPT, 50-150 SCFM (1,416-4,248 SLPM)	9060	Universal Air Knife Mounting System
9010	Oil Removal Filter, 1-1/2 NPT, 130-310 SCFM (3,679-8,773 SLPM)	110900	Aluminum Coupling Bracket Kit
9008	Pressure Regulator, 1/4 NPT, 50 SCFM (1,416 SLPM)	110900SS	Type 303 Stainless Steel Coupling Bracket Kit
9033	Pressure Regulator, 1/2 NPT, 100 SCFM (2,832 SLPM)	110900SS-316	Type 316 Stainless Steel Coupling Bracket Kit
9009	Pressure Regulator, 3/4 NPT, 220 SCFM (6,230 SLPM)		

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

EXAIR's Plumbing Kits provide properly sized compressed air hose or pipe, and fittings to eliminate pressure loss and provide peak performance. See page 29 and 31 for details.

Which Air Knife Is Best For Your Application?

EXAIR manufactures the Super Air Knife, Standard Air Knife and Full-Flow Air Knife. The table below provides a quick comparison of the three styles.

The Super Air Knife provides the best performance with a 40:1 air amplification ratio, making it the most efficient. It is the best choice for all applications. The Super Air Knife has a laminar airstream that is uniform, forceful and quiet. Velocity is the highest of all three air knives. Air consumption is lowest of all three air knives. Compressed air inlets are provided on each end and on the bottom. Multiple Super Air Knives can be mounted "end to end" for longer lengths of uninterrupted airflow.

The Standard Air Knife provides good performance with a 30:1 air amplification ratio that is less efficient than the Super Air Knife. It is a good choice when a less expensive alternative is required. The Standard Air Knife has an airflow that is also uniform and forceful. It is louder and uses more compressed air than the Super Air Knife. Compressed air inlets are provided on each end. Overall length is 1" (25mm) longer than the airflow length.

The Full-Flow Air Knife provides good performance with a 30:1 air amplification ratio. The Full-Flow Air Knife is the least expensive and is a good choice for tight spaces. Force is less than the other two styles. Air consumption and sound level falls between that of the Super Air Knife and the Standard Air Knife. Compressed air inlet(s) are provided on the rear. Inlets are available on each end at a small additional charge, however they are not recommended for applications where uniform flow across the length is required.

	Air Consumption		Velocity		Force per Inch (25mm)		Sound Level	Amp.
	SCFM	SLPM	FPM	M/S	Ozs	Grams	dBA	RATIO
6" (152mm) Super Air Knife	17.4	492	11,800	59.9	2.5	71	69	40:1
6" (152mm) Standard Air Knife	20.4	577	11,000	55.9	2.7	77	83	30:1
6" (152mm) Full-Flow Air Knife	18.6	526	10,000	50.8	2.3	65	80	30:1

Velocity and force measured at 6" (152mm) from target. Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Super Air Knife? Standard Air Knife? Full-Flow Air Knife?

Super Air Knife *(shown left)*
Standard Air Knife *(shown middle)*
Full-Flow Air Knife *(shown right)*

Super Air Knife

- Best choice for all applications
- Lowest operating cost
- Highest efficiency (saves most air)
- Quietest
- 40:1 air amplification ratio
- Compressed air inlets on each end and the bottom
- Airflow length and overall length are the same

Standard Air Knife

- Good choice, lower purchase price
- Highest operating cost of the three
- Good velocity
- Higher dBA rating
- Compressed air inlets on each end
- Overall length is 1" (25mm) longer than the airflow length

Full-Flow Air Knife

- Good choice, lowest purchase price
- Higher operating cost than the Super Air Knife
- Smallest size
- Airflow length and overall length are the same

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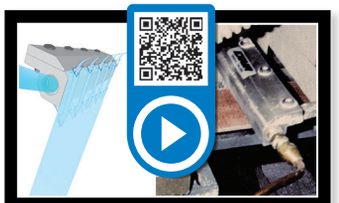
FLUIDAL, S.L. Pº Ubarburu,79 Pab.4 L.6 20.115 Astigarraga (Gipuzkoa) www.fluidal.com - fluidal@fluidal.com

Standard Air Knife™

Hard hitting curtain of air for web, sheet and part blowoff.

What Is The Standard Air Knife?

A quiet, energy efficient way to clean, dry or cool parts, webs or conveyors. The Standard Air Knife 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, the Standard Air Knife pulls in large volumes of surrounding air to produce a high flow, high velocity curtain of air for blowoff.



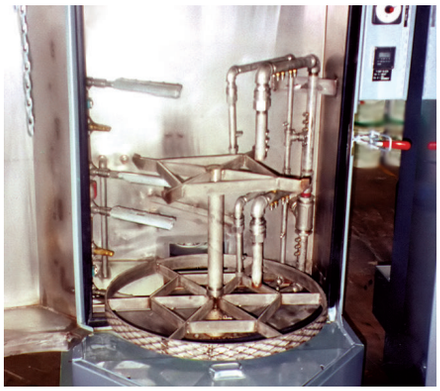
Built to Last 5 yr. WARRANTY
See our Terms & Conditions page for complete details.

Why The Standard Air Knife?

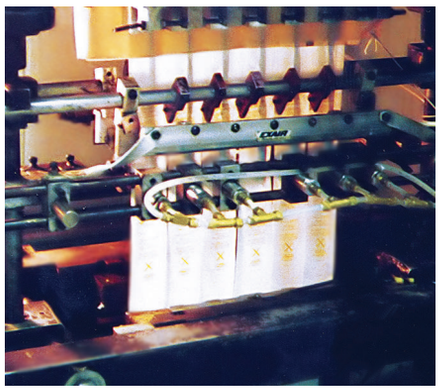
Amplification ratios (entrained air to compressed air) of 30:1 are achieved with the Standard Air Knife, compared to 3:1 for drilled or slotted pipe. **Air savings of 40% to 90%** are possible when replacing these "homemade" blowoff devices. Pay-back is normally measured in weeks, not months or years.

The Standard Air Knife dramatically reduces "wind shear" by gradually introducing the entrained air to the ejected compressed air. **Noise level is typically cut in half.** The result is a high velocity, high volume sheet of air with reduced noise level and air consumption.

Drilled pipe or open jets, by contrast, provide minimal air amplification. They also produce unacceptably high noise levels as the compressed air shears into the still air.



(3) Model 2012 12" (305mm) Standard Air Knives perform the drying cycle in this parts washer.



A Model 2012 12" (305mm) Standard Air Knife opens mustard packets prior to fill.

Applications

- Part drying after wash
- Sheet cleaning in strip mills
- Conveyor cleaning
- Web drying or cleaning
- Part or component cooling
- Environmental separation
- Pre-paint blowoff
- Bag opening/fill operations
- Scrap removal on converting operations

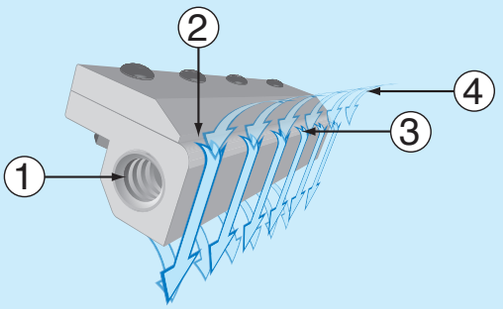
Advantages

- Up to 10 dBA noise reduction
- Reduced air consumption
- 30:1 air amplification
- Aluminum or stainless steel
- Compact, rugged, easy to install
- Stock lengths to 48" (1219mm)
- No moving parts
- Compressed air inlets on each end
- Variable force and flow

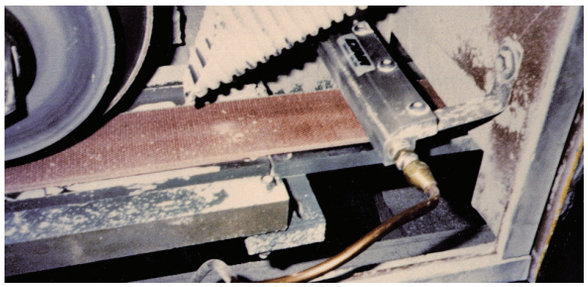
Is the Standard Air Knife best for your application? see page 32

Standard Air Knife

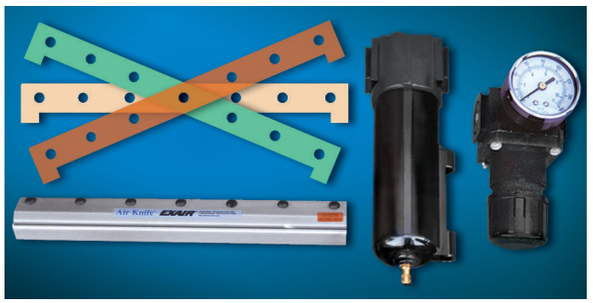
How The Standard Air Knife Works



Compressed air flows through the inlet (1) into a plenum chamber. It is then throttled through a thin nozzle (2) extending the length of the Standard Air Knife. This primary airstream adheres to the Coanda profile (3), which turns it 90° and directs the flow down the face of the unit. The primary stream immediately begins to entrain surrounding air (4), for an amplification ratio of 30:1 at 6" (152mm) away.



A Model 2006 6" (152mm) Standard Air Knife blows powder loose from a belt so it can be vacuumed away.



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

Standard Air Knife Specifications

The Standard Air Knife is available in ten 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). This measurement refers to the airflow length. The overall length is 1" (25mm) longer. **Special lengths up to 48" (1219mm) are available.** Any number of Standard Air Knives may be installed across a given area.

Compressed Air Inlets: A Standard Air Knife has compressed air inlets on each end. Lengths 24" (610mm) and longer should be supplied with compressed air at each end to maintain uniform airflow.

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 Standard 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 Standard Air Knife can also be supported by the compressed air pipe.

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 Standard Air Knife has a .002" (0.05mm) gap setting. This gap is set with a shim positioned between the cap and body of the Standard Air Knife. Force and flow through the Standard Air Knife may be easily increased by adding shims to open the gap. Standard Air Knife Kits include a shim set (three additional shims). Shim sets for aluminum Standard Air Knives include a .001" (0.03mm) **Amber color**, .003" (0.08mm) **Green color**, and .004" (0.10mm) thick **Tan color** plastic shims. Shim sets for stainless steel Standard Air Knives include (3) .002" (0.05mm) thick stainless steel shims.

Standard Air Knife Performance with .002" (0.05mm) thick shim installed

Pressure Supply		Air Consumption per Inch (25mm)		Velocity @ 6" (152mm) from target		Sound Level @ 3' (914mm)	Force per Inch (25mm) @ 6" (152mm) from target	
PSIG	BAR	SCFM	SLPM	FPM	M/S	dBA	Ozs	Grams
20	1.4	1.3	37	4,000	20.3	65	0.45	13
40	2.8	2.0	57	5,800	29.5	74	1.1	31
60	4.1	2.7	76	8,500	43.2	80	2.0	57
80	5.5	3.4	96	11,000	55.9	83	2.7	77
100	6.9	4.1	116	13,000	66.0	86	3.3	94

12" (305mm) Standard Air Knife tested

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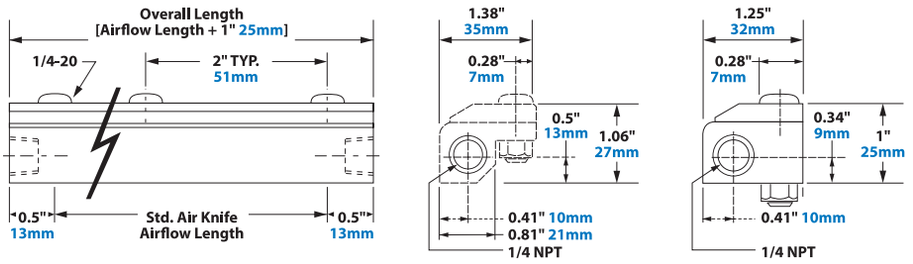
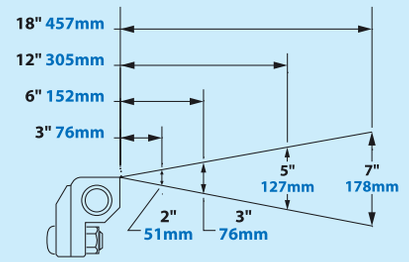
Standard Air Knife

Standard Air Knife Dimensions

DOWNLOAD drawings at EXAIR.com



Airflow Pattern



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.

Special length Standard Air Knives are available. Magnetic bases with Stay Set™ flexible hoses are also available for smaller Standard Air Knives. Please contact our factory.

ORDER ONLINE at EXAIR.com

Standard Air Knife Only

Airflow Length	Aluminum Model	Type 303SS Model
3" (76mm)	2003	2003SS
6" (152mm)	2006	2006SS
9" (229mm)	2009	2009SS
12" (305mm)	2012	2012SS
18" (457mm)	2018	2018SS
24" (610mm)	2024	2024SS
30" (762mm)	2030	2030SS
36" (914mm)	2036	2036SS
42" (1067mm)	2042	2042SS
48" (1219mm)	2048	2048SS

Standard Air Knife Kits

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

Airflow Length	Aluminum Model	Type 303SS Model
3" (76mm)	2203	2203SS
6" (152mm)	2206	2206SS
9" (229mm)	2209	2209SS
12" (305mm)	2212	2212SS
18" (457mm)	2218	2218SS
24" (610mm)	2224	2224SS
30" (762mm)	2230	2230SS
36" (914mm)	2236	2236SS
42" (1067mm)	2242	2242SS
48" (1219mm)	2248	2248SS

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)
9066	Auto Drain Filter Separator, 1-1/4 NPT, 400 SCFM (11,327 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)
9010	Oil Removal Filter, 1-1/2 NPT, 130-310 SCFM (3,679-8,773 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)
9067	Pressure Regulator, 1-1/4 NPT, 700 SCFM (19,822 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)

Deluxe Standard Air Knife Kits

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

Airflow Length	Aluminum Model	Type 303SS Model
3" (76mm)	2203DX	2203SSDX
6" (152mm)	2206DX	2206SSDX
9" (229mm)	2209DX	2209SSDX
12" (305mm)	2212DX	2212SSDX
18" (457mm)	2218DX	2218SSDX
24" (610mm)	2224DX	2224SSDX
30" (762mm)	2230DX	2230SSDX
36" (914mm)	2236DX	2236SSDX
42" (1067mm)	2242DX	2242SSDX
48" (1219mm)	2248DX	2248SSDX

Standard 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 (3) .002" (0.05mm) shims.

Airflow Length	Aluminum Model	Type 303SS Model
3" (76mm)	2303	2303SS
6" (152mm)	2306	2306SS
9" (229mm)	2309	2309SS
12" (305mm)	2312	2312SS
18" (457mm)	2318	2318SS
24" (610mm)	2324	2324SS
30" (762mm)	2330	2330SS
36" (914mm)	2336	2336SS
42" (1067mm)	2342	2342SS
48" (1219mm)	2348	2348SS

FLUIDAL, S.L. Pº Ubarburu,79 Pab.4 L.6 20.115 Astigarraga (Gipuzkoa) www.fluidal.com - fluidal@fluidal.com

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.

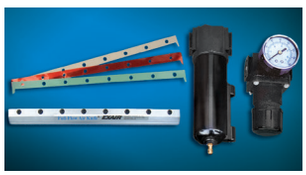
Filtration: The use of clean air is essential. Kits include an automatic drain filter with a 5 micron filter element that is sized properly for flow.

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.

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.



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

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

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

Pressure Supply		Air Consumption per Inch (25mm)		Velocity @ 6" (152mm) from target		Sound Level @ 3' (914mm)	Force per Inch (25mm) @ 6" (152mm) from target	
PSIG	BAR	SCFM	SLPM	FPM	M/S	dBA	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

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

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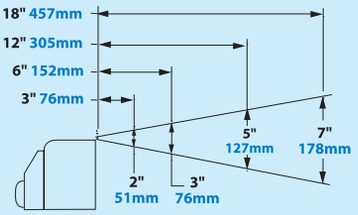
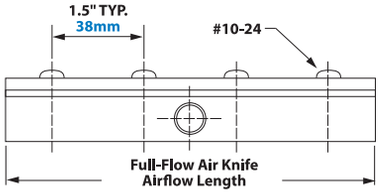
A series of Full-Flow Air Knives "float" layers of plastic film in the confined space of the machine.

Airflow Pattern



Full-Flow Air Knife Dimensions



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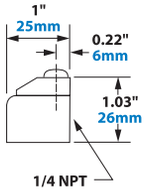
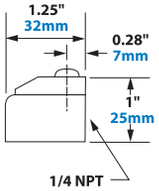
Aluminum



Stainless Steel



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

ORDER ONLINE at EXAIR.com

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

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.

Super Air Wipe™

Blowoff, dry, clean and cool pipe, cable, extruded shapes, hose, and wire!

Split design requires no threading!

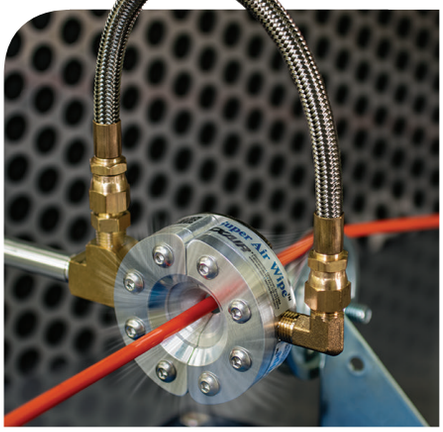
- ☑ Uniform 360° Airflow!
- ☑ For Environments Up To 800°F
- ☑ Variable Force And Flow!

What Is The Super Air Wipe?

EXAIR's Super Air Wipe provides a uniform 360° airstream that is ideal for blowoff, drying, cleaning and cooling of pipe, cable, extruded shapes, hose, wire and more. The split design offers easy clamping around the surface of the material moving through it, eliminating the need for threading. Available from 3/8" (10mm) through 11" (279mm) diameters.

All models include stainless steel screws and shims. Stainless steel wire braided hose is also included on sizes up to 4" (102mm) for added corrosion and heat resistance. Aluminum models are rated for temperatures up to 400°F (204°C) and stainless steel models for temperatures up to 800°F (427°C).

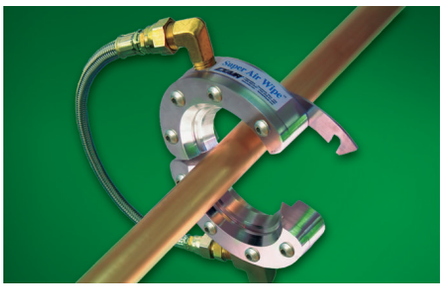
Plant Engineering PRODUCT of the YEAR Finalist 2002



A 3/8" Super Air Wipe uniformly dries a hose as it exits a cooling bath.

The stainless steel Super Air Wipe is ideal for food and pharmaceutical applications.

Built to Last 5 yr. WARRANTY
See our Terms & Conditions



The split design of the Super Air Wipe unlatches easily to eliminate threading.

Applications

- Drying after washing, cleaning, plating or coating
- Blowoff dust and contaminants
- Cool hot extruded shapes
- Uniformly wipe surfaces
- Dry extruded profiles, rod and medical tubing
- Eliminate solution carryover - no cross contamination
- Blow excess water from automotive door gaskets
- Remove excess coatings, water and oil
- Dry tube, hose, wire, fiber optics
- Minimize solution loss due to drag-out
- Clean paint gun tips
- Dry screen printed or ink jetted surfaces
- Clean strips and ribbon

Advantages

- Quiet
- Low air consumption
- Uniform 360° airflow
- Stainless steel hardware resists corrosion
- Aluminum models for temperatures up to 400°F (204°C) Stainless steel models for temperatures up to 800°F (427°C)
- Stainless steel hose supplied on sizes up to 4" (102mm)
- No electricity, no moving parts
- Non-contact - no wiper blade
- Split design - compact, rugged, easy to install
- Lightweight, low profile
- Tapped holes for mounting
- Variable force and flow
- Meets OSHA maximum dead end pressure and noise requirements

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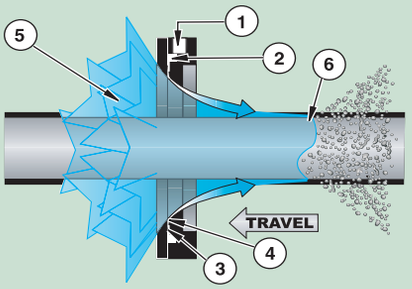


How The Air Wipe Works

Compressed air flows through an inlet (1) of the Air Wipe into an annular chamber (2). It is then throttled through a small ring nozzle (3) at high velocity. This primary airstream adheres to the Coanda profile (4), which directs it down the angled surface of the Air Wipe. A low pressure area is created at the center (5) inducing a high volume flow of surrounding air into the primary airstream. As the airflow leaves the Air Wipe, it creates a conical 360° ring of air that attaches itself to the surface of the material running through it (6), uniformly wiping the entire surface with the high velocity airflow.

The aluminum Super Air Wipe is available in 11 sizes from stock. The stainless steel Super Air Wipe is available in 5 sizes from stock. Other sizes are available by special order.

Why The Super Air Wipe?

Prior to the introduction of the Super Air Wipe, the only way to blowoff, dry, clean and cool cylindrical, round, or extruded surfaces was to use a ring of air nozzles. The high air consumption and noise levels of the nozzles along with inconsistent air velocity often delivered poor results. The Super Air Wipe provides a high volume, high velocity airflow that is uniformly ejected from the 360° of its inner diameter. The airstream attaches itself to the material running through it to effectively wipe, clean or dry surfaces. Velocity can be varied from a “blast” to a “breeze”. Air consumption and noise are low.

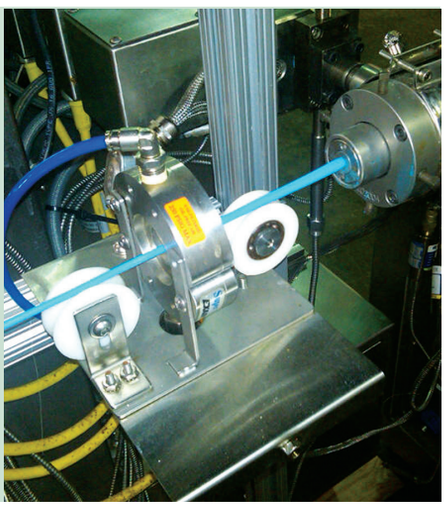
Super Air Wipe Is Easy To Use

There is a 1/4 NPT female inlet on each half of the Super Air Wipe on sizes up to 7" (178mm). Sizes 9" (229mm) and larger include two 1/4 NPT female inlets on each half in order to maintain proper air volume and performance. Aluminum Super Air Wipes up to 4" (102mm) include a brass tee that supplies one half directly and a stainless steel wire braided coupling hose rated at 400°F (204°C) to supply the other half. Stainless steel Super Air Wipes up to 4" (102mm) include a stainless steel tee and a stainless steel wire braided coupling hose rated at 800°F (427°C). Larger sizes should be piped directly.

Tapped holes on the downstream side are provided for permanent mounting if the Super Air Wipe is not held in place with rigid pipe. Coupling brackets that hold each half of the Super Air Wipe together are provided which can be installed or removed quickly if required.

Cooling Extruded Tubing

The Problem: The extruded product, being hot and pliable, would slump and produce a crooked length of tubing. The customer tried using a series of rollers to support the extrusion until it cooled enough to become stiff. This helped somewhat, but they still experienced slump between rollers. The end product still would not meet customer specifications.
The Solution: Using a Model 2401 1" (25mm) Super Air Wipe positioned between two rollers, the product was cooled enough to maintain rigidity. Adding another set of Air Wipe/rollers, they were able to extrude even faster.
Comment: Not only were they able to salvage a $30,000 order, the increased process speed enabled them to requote the job at a lower price and secure future business from their customer.



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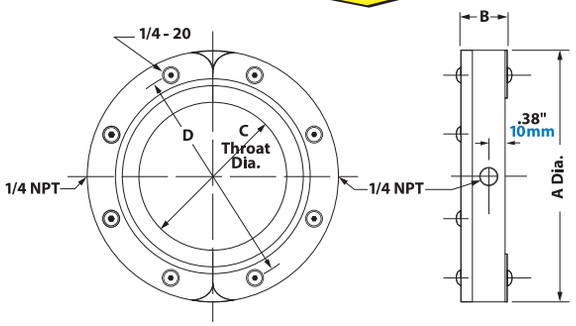
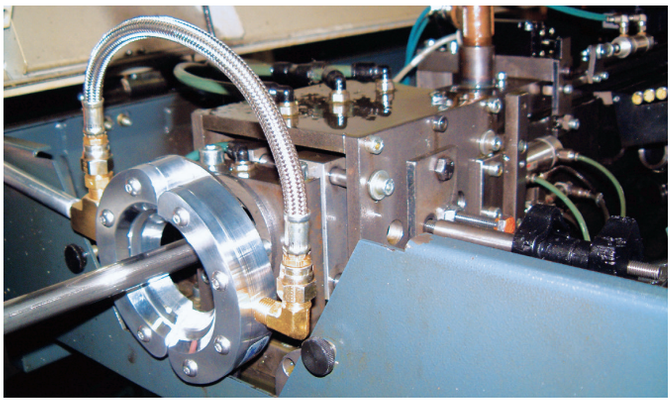
Super Air Wipe

Air Wipe Dimensions

DOWNLOAD drawings at EXAIR.com



Super	Std		A	B	C	D
2399	2429	in	3.13	1.13	0.38	2.38
		mm	79	29	10	60
2400, 2400SS	2430	in	3.25	1.13	0.50	2.50
		mm	83	29	13	64
2401, 2401SS	2431	in	3.75	1.13	1	2.95
		mm	95	29	25	75
2402, 2402SS	2432	in	4.75	1.13	2	3.95
		mm	121	29	51	100
2403, 2403SS	2433	in	5.75	1.13	3	4.95
		mm	146	29	76	126
2404, 2404SS	2434	in	6.75	1.13	4	5.95
		mm	172	29	102	151
2405	2435	in	7.75	1.13	5	6.95
		mm	197	29	127	176
2406	2436	in	8.75	1.13	6	7.95
		mm	222	29	152	202
2407	2437	in	9.75	1.13	7	8.95
		mm	248	29	178	227
2409	2439	in	11.75	1.13	9	10.95
		mm	299	29	229	278
2411	2441	in	13.75	1.13	11	12.95
		mm	349	29	279	329



The Super Air Wipe eliminates the possibility of smoke during machining by wiping hydraulic oil from the bar stock as it enters the chuck.

Air Wipe Performance

80 PSIG (5.5 BAR)	Air Consumption		Sound Level @3' (914mm)
Model #	SCFM	SLPM	dBA
2399, 2429	11.1	314	82
2400, 2400SS, 2430	13.9	394	80
2401, 2401SS, 2431	19.1	541	80
2402, 2402SS, 2432	29.5	835	81
2403, 2403SS, 2433	39.8	1,127	82
2404, 2404SS, 2434	50.2	1,422	82
2405, 2435	60.6	1,716	82
2406, 2436	71.0	2,010	84
2407, 2437	81.3	2,302	85
2409, 2439	102.1	2,891	87
2411, 2441	122.8	3,477	89

Super Air Wipe Specifications

The Super Air Wipe is available with throat diameters (I.D.) of 3/8", 1/2", 1", 2", 3", 4", 5", 6", 7", 9", and 11" (10, 13, 25, 51, 76, 102, 127, 152, 178, 229, and 279mm). **Special diameters are available. Please contact our factory.**

Compressed Air Inlets: The Super Air Wipe has compressed air inlets on each half. Stainless steel wire braided hose is supplied with sizes up to 4" (102mm) that couples the air supply of one half to the other. Sizes 9" (229mm) and larger have two inlets on each half that must be supplied with compressed air to maintain uniform airflow.

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

Materials of Construction: The Super Air Wipe is constructed of aluminum or stainless steel. All models use stainless steel shims and screws. Stainless steel wire braided hose is included with sizes up to 4" (102mm).

Temperature: Aluminum Super Air Wipes are rated for temperatures up to 400°F (204°C). Stainless steel models are rated for temperatures to 800°F (427°C).

Mounting: The Super Air Wipe can be supported by the compressed air supply pipe. Tapped holes (1/4-20) on the downstream side of the Super Air Wipe can also be used for mounting.

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: The Super Air Wipe has a .002" (0.05mm) gap setting. The compressed air exhausts through a gap which is set with a stainless steel shim positioned between the cap and body of the Super Air Wipe. Force and flow through the Super Air Wipe may be easily increased by adding shims to open the gap. Kits include a shim set. Shim sets include (2) .002" (0.05mm) thick stainless steel shims.

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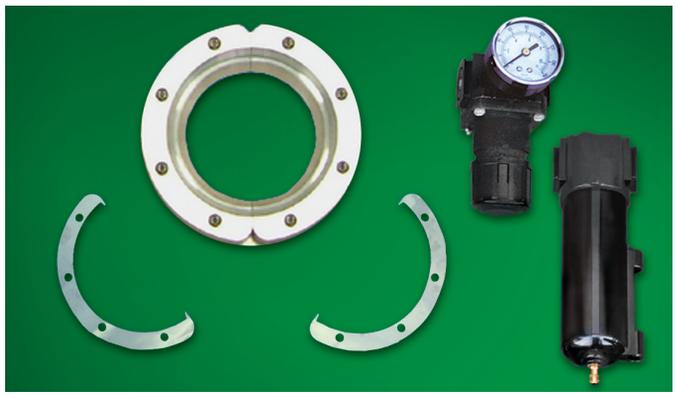
Changing Performance By Adding Shims

The compressed air exhausts through a gap which is set with a shim positioned between the cap and the body of the Super Air Wipe. The Super Air Wipe is shipped with a .002" (0.05mm) thick stainless steel shim installed which works best for most applications. Force and flow may be easily increased by adding shims to open the gap. Increasing the gap opening offers higher velocity and harder hitting force. Air consumption and noise will be slightly higher. Super Air Wipe shim sets include two .002" (0.05mm) stainless steel shims that can be stacked. Shim sets are included with all kits or can be purchased separately.

Special diameter Super Air Wipes are available. Please contact our factory.



The Super Air Wipe Kit includes a stainless steel shim set, filter separator and pressure regulator (with coupler).

Super Air Wipe Models

Super Air Wipe Only

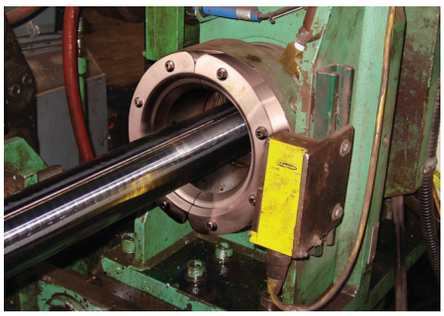
Super Air Wipe Kits - include the Super Air Wipe, shim set, filter separator and pressure regulator (with coupler).

Super Air Wipe Shim Sets - include (2) .002" (0.05mm) thick stainless steel shims.

I.D.	Aluminum Super Air Wipe Only Model	Aluminum Super Air Wipe Kit Model	Stainless Steel Super Air Wipe Only Model	Stainless Steel Super Air Wipe Kit Model	Super Air Wipe Shim Set Model
3/8" (10mm)	2399	2449	N/A	N/A	2349SS
1/2" (13mm)	2400	2450	2400SS	2450SS	2350SS
1" (25mm)	2401	2451	2401SS	2451SS	2351SS
2" (51mm)	2402	2452	2402SS	2452SS	2352SS
3" (76mm)	2403	2453	2403SS	2453SS	2353SS
4" (102mm)	2404	2454	2404SS	2454SS	2354SS
5" (127mm)	2405	2455	N/A	N/A	2355SS
6" (152mm)	2406	2456	N/A	N/A	2356SS
7" (178mm)	2407	2457	N/A	N/A	2357SS
9" (229mm)	2409	2459	N/A	N/A	2359SS
11" (279mm)	2411	2461	N/A	N/A	2361SS

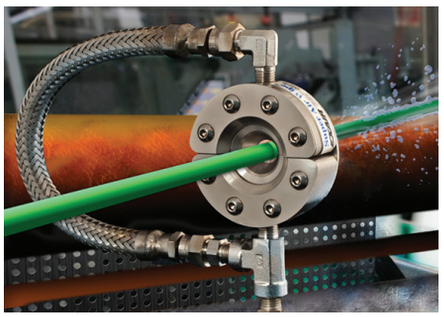
Accessories

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)



A Model 2404 4" (102mm) Super Air Wipe cleans a steel rod after processing.

The flanged end of an axle is lifted through a Super Air Wipe to blow off chips after machining.



EXAIR's 1/2" Super Air Wipe dries a wire as it exits a cooling bath.

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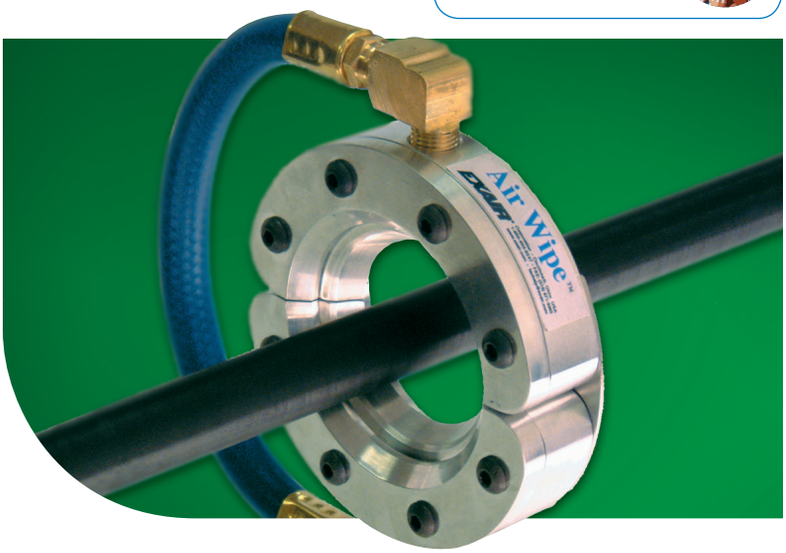
Standard Air Wipe™

This hard-hitting 360° ring of airflow is the economical way to blowoff, dry, clean, and cool!

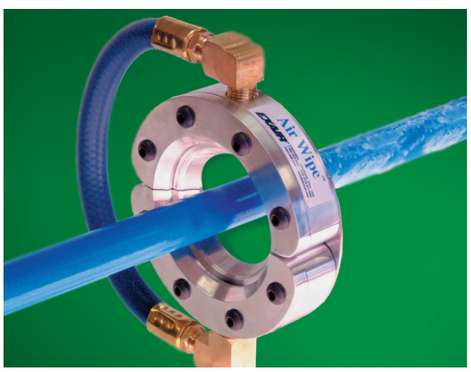


What Is The Standard Air Wipe?

EXAIR's Standard Air Wipe provides a uniform 360° airstream that is ideal for blowoff, drying, cleaning and cooling of pipe, cable, extruded shapes, hose and more. The split design offers easy clamping around the surface of the material moving through it, eliminating the need for threading.

Why The Standard Air Wipe?

The Standard Air Wipe is a good choice when the added durability of stainless steel screws, shims and hose are not required. The Standard Air Wipe uses coated screws, plastic shims and a general purpose PVC coupling air hose on sizes up to 4" (102mm). The Standard Air Wipe is best suited to applications in non-corrosive environments where temperatures do not exceed 150°F (66°C). The dimensions and performance of this product are the same as that of the Super Air Wipe which is detailed on page 40.



The Standard Air Wipe removes liquid from a plastic rod.

Standard Air Wipe Specifications

The Standard Air Wipe is available with throat diameters (I.D.) of 3/8", 1/2", 1", 2", 3", 4", 5", 6", 7", 9", and 11" (10, 13, 25, 51, 76, 102, 127, 152, 178, 229, and 279mm). **Special diameters are available. Contact our factory.**

Compressed Air Inlets: The Standard Air Wipe has compressed air inlets on each half. General purpose compressed air hose is supplied with sizes up to 4" (102mm) that couples the air supply of one half to the other. Sizes 9" (229mm) and larger have two inlets on each half that must be supplied with compressed air to maintain uniform airflow.

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 Standard Air Wipe is constructed of aluminum. All models use coated screws and plastic shims. General purpose PVC air hose is included with sizes up to 4" (102mm).

Temperature: The Standard Air Wipe is rated for temperatures up to 150°F (66°C).

Mounting: The Standard Air Wipe can be supported by the compressed air supply pipe. Tapped holes (1/4-20) on the downstream side of the Standard Air Wipe can also be used for mounting.

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: The Standard Air Wipe has a .002" (0.05mm) gap setting. The compressed air exhausts through a gap which is set with a plastic shim positioned between the cap and body of the Standard Air Wipe. Force and flow through the Standard Air Wipe may be easily increased by adding shims to open the gap. Kits include a shim set (three additional shims). Shim sets include two ***.001" (0.03mm) Amber color*** ▮, ***.003" (0.08mm), Green color*** ▮, ***and .004" (0.10mm) thick Tan color*** ▮ plastic shims.

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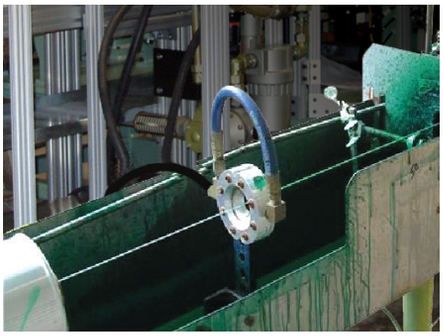
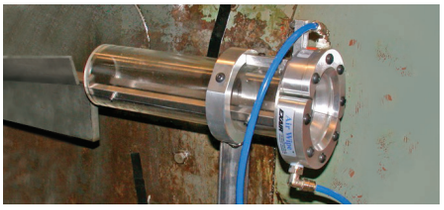
Standard Air Wipe

Changing Performance By Adding Shims

The compressed air exhausts through a gap which is set with a shim positioned between the cap and the body of the Standard Air Wipe. It is shipped with a .002" (0.05mm) thick plastic shim installed which works best for most applications. Force and flow may be easily increased by adding shims to open the gap. Increasing the gap opening offers higher velocity and harder hitting force. Air consumption and noise will be slightly higher. Air Wipe shim sets are available that include two each of a ***.001" (0.03mm) Amber color***, ***.003" (0.08mm) Green color***, and ***.004" (0.10mm)*** thick ***Tan color*** plastic shims. Shim sets are included with all kits or may be purchased separately.

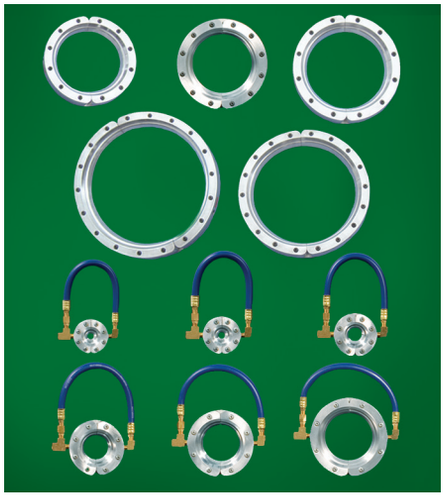


A Model 2431 1" (25mm) Standard Air Wipe blows off the excess coating from a wire into a dip tank.



The Standard Air Wipe blows coolant off the part and back into the centerless grinder.

The Standard Air Wipe Kit includes a shim set, filter separator and pressure regulator (with coupler).



The Standard Air Wipe is available in sizes from 3/8" (10mm) to 11" (279mm) in diameter.

Standard Air Wipe Models

Standard Air Wipe Only
Standard Air Wipe Kits - include the Standard Air Wipe, shim set, filter separator and pressure regulator (with coupler).
Standard Air Wipe Shim Sets - include (2) each of a .001" (0.03mm), .003" (0.08mm) and .004" (0.10mm) thick plastic shim.

I.D.	Standard Air Wipe Only Model	Standard Air Wipe Kit Model	Standard Air Wipe Shim Set Model
3/8" (10mm)	2429	2479	2349
1/2" (13mm)	2430	2480	2350
1" (25mm)	2431	2481	2351
2" (51mm)	2432	2482	2352
3" (76mm)	2433	2483	2353
4" (102mm)	2434	2484	2354
5" (127mm)	2435	2485	2355
6" (152mm)	2436	2486	2356
7" (178mm)	2437	2487	2357
9" (229mm)	2439	2489	2359
11" (279mm)	2441	2491	2361

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)

Special diameter Standard Air Wipes are available. Please contact our factory.

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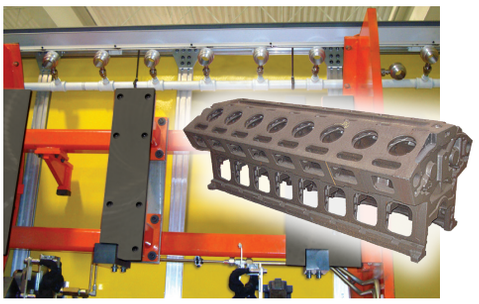
Air Amplifiers

Vent, exhaust, cool, dry, clean – with no moving parts!

What Are Air Amplifiers?

A simple, low cost way to move air, smoke, fumes, and light materials. Air Amplifiers utilize the Coanda effect, a basic principle of fluid dynamics, to create air motion in their surroundings. Using a small amount of compressed air as their power source, Air Amplifiers pull in large volumes of surrounding air to **produce high volume, high velocity outlet flows. Quiet, efficient Air Amplifiers will create output flows up to 25 times their consumption rate.**



A series of Model 6042 2" (51mm) Adjustable Air Amplifiers blow coolant off 16 cylinder diesel engines.

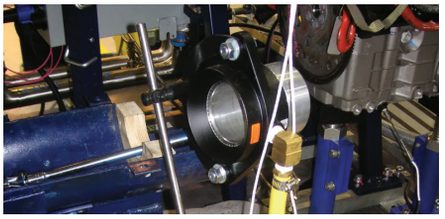
Why Air Amplifiers?

Air Amplifiers have no moving parts, assuring maintenance-free operation. No electricity is required. Flow, vacuum and velocity are easy to control. Outlet flows are easily adjusted by opening or closing the air gap. Supply air pressure can be regulated to fine tune outlet flow to meet application needs.

Both the vacuum and discharge ends of the Air Amplifier can be ducted, making them ideal for drawing fresh air from another location, or moving smoke and fumes away.

Built to Last 5 yr. WARRANTY
See our Terms & Conditions

Adjustable Air Amplifiers are ducted to draw clean air for drying.



A Model 120024 4" (102mm) Super Air Amplifier cools an engine during dynamometer testing.

Applications

- Vent welding smoke
- Cool hot parts
- Dry wet parts
- Clean machined parts
- Distribute heat in molds/ovens
- Ventilate confined areas
- Dust collection
- Exhaust tank fumes

Advantages Compared to Fans:

- Compact, lightweight, portable
- No electricity
- No moving parts – no maintenance
- Ends are easily ducted
- Instant on/off
- Variable force and flow
- No RF interference

Compared to Venturis and Ejectors:

- More air volume with lower compressed air consumption
- Higher flow amplification
- No internal obstructions
- Meets OSHA pressure and noise requirements
- Quiet

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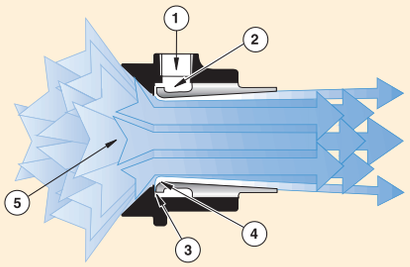
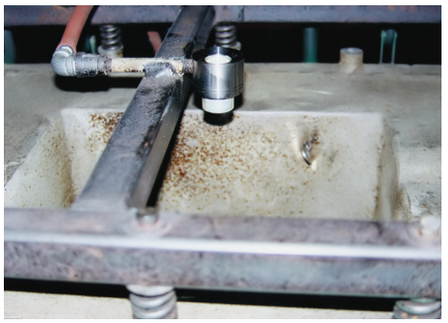
Air Amplifiers

How Air Amplifiers Work



Compressed air flows through the air inlet (1) into an annular chamber (2). It is then throttled through a small ring nozzle (3) at high velocity. This primary airstream adheres to the Coanda profile (4), which directs it toward the outlet. A low pressure area is created at the center (5), inducing a high volume flow of surrounding air into the primary airstream. The combined flow of primary and surrounding air exhausts from the Air Amplifier in a high volume, high velocity flow.



A Model 121021 1-1/4" (32mm) High Temperature Air Amplifier directs hot air to a rotational mold cavity for uniform wall thickness of the plastic part.

Air Amplifier Model Selection Guide

	Air Amplifier Comparison					
	Efficiency	Sound Level	Mounting Flange	Flow Adjustment	Temp. Rating	Corrosive Applications
Super Air Amplifier	High	Low	Yes	With Shims	275°F (135°C)	No
Aluminum Adjustable Air Amplifier	Medium	Variable	No	Infinite (No shims)	275°F (135°C)	No
Stainless Steel Adjustable Air Amplifier	Medium	Variable	No	Infinite (No shims)	400°F (204°C)	Yes
High Temperature Air Amplifier	High	Low	No	With Shims	700°F (374°C)	Yes

Special Air Amplifiers

EXAIR will manufacture special Air Amplifiers suited to your specific application requirements. The Model 121021 High Temperature Air Amplifier (shown top right) was developed for moving hot air to surfaces requiring uniform heating while in a furnace or oven. Modeled after our Super Air Amplifier, the High Temperature Air Amplifier is the most efficient for pushing high volumes of hot air to points that typically remain cool. This special design is rated for environments up to 700°F (374°C) and its surface is protected from heat stress by a mil-spec. coating process (developed for the aircraft industry), allowing easy disassembly for changing shims or cleaning.

Another stainless steel version for flange mounting was developed as a fan back-up for exhausting flue gases from a furnace (shown middle right). In the event of a power failure, this special Air Amplifier can quickly evacuate the fumes that could be harmful to workers close by.

A PTFE plug was used with a stainless steel Adjustable Air Amplifier (shown bottom right) to help pull a sticky material through a process and prevent the material from depositing on the Air Amplifier.

EXAIR's Intelligent Compressed Air® products can be manufactured to your special requirements.

If you have special requirements, please contact an Application Engineer to discuss your application.

This special stainless steel flange-mount Air Amplifier was designed for exhausting hot flue gases from a furnace.

Adjustable Air Amplifier with PTFE plug helped pull a sticky material through a process and prevented the material from depositing on the Air Amplifier.

An INTELLIGENT COMPRESSED AIR® Product

Super Air Amplifiers

Super Air Amplifier™

Powerful, efficient and quiet air mover for blowoff, cooling, and ventilation.

What Is The Super Air Amplifier?

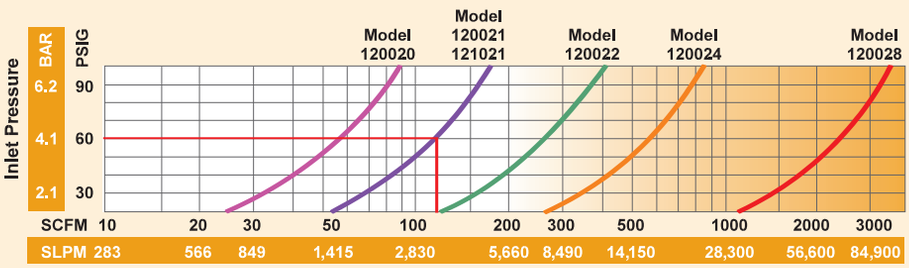
EXAIR's Super Air Amplifier has a patented* design that uses a special shim to maintain critical position of the component parts. As a result, a precise amount of compressed air is released at exact intervals toward the center of the Super Air Amplifier. These jets of air create a constant, high velocity outlet flow across the entire cross-sectional area. Additional free air is pulled through the unit, resulting in higher amplification ratios. The balanced outlet airflow minimizes wind shear to produce sound levels that are typically three times quieter than other air movers.

Super Air Amplifiers are supplied with a .003" (0.08mm) slotted air gap which is ideal for most applications. Flow and force can be increased by replacing the shim with a thicker .006" (0.15mm) or .009" (0.23mm) shim. Model 120028 is supplied with a .009" (0.23mm) air gap. A .015" (0.39mm) shim is available for Model 120028.

Super Air Amplifier Performance at 80 PSIG (5.5 BAR)

	Air Consumption		Amplification	Air Volume at Outlet		Air Volume at 6" (152mm)		Sound Level
Model #	SCFM	SLPM	RATIO	SCFM	SLPM	SCFM	SLPM	dBA
120020	6.1	173	12	73	2,066	219	6,198	69
120021	8.1	229	18	146	4,132	436	12,339	72
120022	15.5	439	22	341	9,650	1,023	28,951	72
120024	29.2	826	25	730	20,659	2,190	61,977	73
120028	120	3,396	25	3,000	84,900	9,000	254,700	88

Model 120028 tested with .009" (0.23mm) shim. All other models tested with .003" (0.08mm) shim.



Total Output Flow with .003" (0.08mm) thick shim installed. Excludes downstream entrainment. Model 120028 tested with a .009" (0.23mm) shim.

How To Determine Super Air Amplifier Total Output Flow And Air Consumption

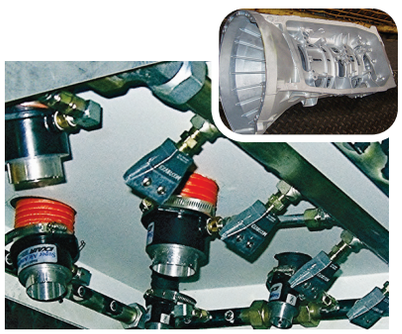
Total Airflow: From the performance curves (above), determine total output flow for any Super Air Amplifier at any pressure.

Example: A Model 120021 at 60 PSIG (4.1 BAR) supply air pressure has a total output flow of 120 SCFM (3,398 SLPM).

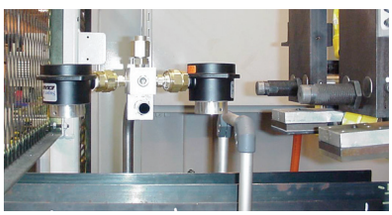
Air Consumption: Divide the total output flow by the amplification ratio (shown in the chart) to determine air consumption for any Super Air Amplifier at any air pressure.

In the example above, the Model 120021 at 60 PSIG (4.1 BAR) supply air pressure has a total output flow of 120 SCFM (3,398 SLPM). Dividing this total output flow by its amplification ratio of 18 gives an air consumption of 6.7 SCFM (189 SLPM).

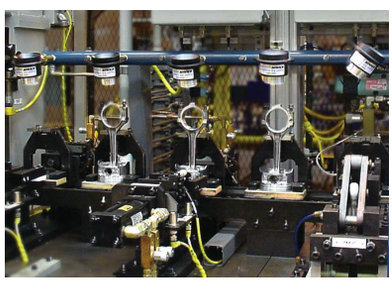
*Patent #5402938



Model 120022 2" (51mm) Super Air Amplifiers and Model 1122 2" Flat Super Air Nozzles blow off transmissions after they are machined.



(2) Model 120022 2" (51mm) Super Air Amplifiers dry small parts as they move down along a parts conveyor.



(5) Model 120022 2" (51mm) Super Air Amplifiers cool truck pistons.

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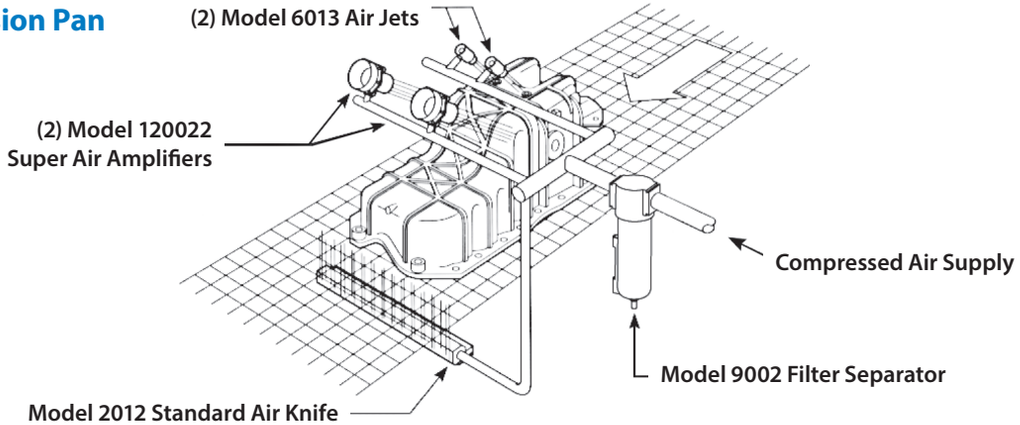
Blowoff On A Transmission Pan

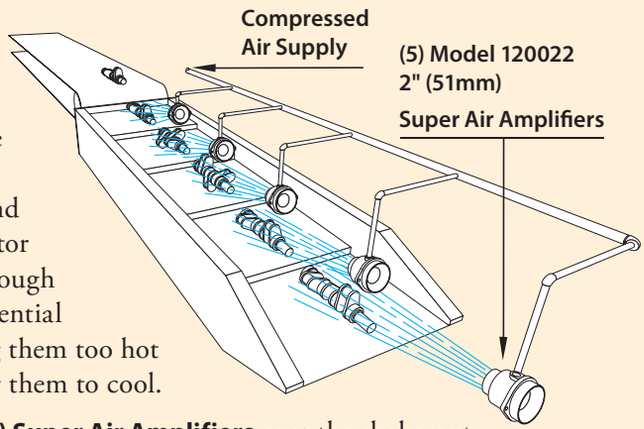


The Problem: A newly designed transmission pan presented a myriad of cleaning problems for the die-caster. Because the configuration included channels and blind holes as well as smooth surfaces, a "shaped" air pattern was required for proper cleaning. No single blowoff product would fit the need. An assortment of open copper tubes and drilled pipes was considered, but was rejected as too noisy and expensive to operate. A blower was not an option due to the high purchase price, expensive maintenance costs and frequent downtime.

The Solution: With help from our Application Engineers, the company created a cleaning system incorporating a variety of EXAIR blowoff products. **(2) Model 6013 High Velocity Air Jets,** with their confined airstream, cleared the blind holes, while **(2) Model 120022 2" (51mm) Super Air Amplifiers** cleaned the channels. A **Model 2012 12" (305mm) Standard Air Knife** was positioned to blow out the casting's underside.

Comment: There's no doubt that the casting could have been cleaned just as well by hooking up a bunch of open copper tubes and throwing a ton of air at it. But, at what cost? EXAIR makes a variety of blowoff products because parts come in a variety of shapes and sizes. **And, our products operate at a fraction of the air consumption and noise levels associated with open air pipes.** When you need to clean, cool, or dry with air, and you'd like to minimize dollars and decibels, EXAIR can help.

Super Air Amplifier Cools Iron Castings



The Problem: A foundry that produces iron castings for the automotive industry had a problem with certain hot parts that slowed their production. After pouring, the castings gradually cool by traveling along a 200 foot long conveyor. At the end, a shake-out conveyor breaks the sand mold so the casting can be removed. Normally, the operator could pick up the part with special gloves and grind the rough edges. However, some castings such as crankshafts, differential housings, and shift parts retained too much heat, making them too hot to handle. The operator had to wait up to ten minutes for them to cool.

The Solution: They installed **(5) Model 120022 2" (51mm) Super Air Amplifiers** over the shake-out conveyor. The high output airflow from each Super Air Amplifier rapidly cooled the parts without shocking them (no cracks or imperfections from cooling too rapidly). **When the part reached the end of the conveyor, the operator could proceed immediately.** The backlog was completely eliminated.

Editor's Comment: This manufacturer had almost given up on finding a cooling solution since the fans and blowers that were tried in the past showed little improvement. Our Super Air Amplifier dramatically reduced the cooling time. As a result, they installed them on their second line. The low cost Super Air Amplifiers are compact, portable and have no moving parts to wear out (which is ideal in a dusty foundry). **And, the patented design assures the highest output air volumes possible with the lowest air consumption.**

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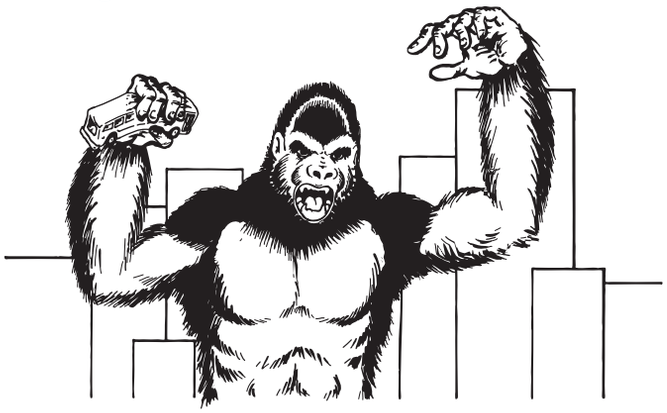
Super Air Amplifiers

Roaring Banana Breath



The Problem: A company that designs major attractions for theme parks created a huge gorilla to startle the patrons. The animators wanted the oversized ape to appear as "life-like" as possible. To accomplish this, they used a series of motors and cylinders to make the movement of the eyes, hands, arms and torso appear realistic. They also installed a large speaker system to play an audio sample of a loud roar that matched his mammoth size. The finishing touch was to find a way to create a powerful blast of air that smelled like bananas each time the big ape's mouth opened. Attempts using an electrically powered blower proved unsuccessful due to the noise and the inability to obtain an "instant on" blast of air.

The Solution: They installed a tank of banana extract in his tummy and connected it to his mouth with a **Model 120028 8" (203mm) Super Air Amplifier**. As the spectators moved into position, a sensor activated the electronics, setting "Old Banana Breath" (name given by the designers) into motion. With a swift movement toward the crowd, his mouth opens and **the Super Air Amplifier provides an instantaneous blast of high velocity air (filled with banana fumes) at them.**

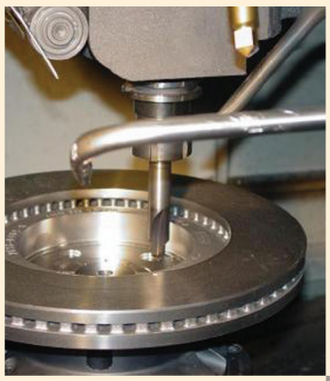
Comment: Why did the engineers select the Super Air Amplifier? First, simplicity. There are no moving parts to wear out or require maintenance. It uses only filtered compressed air as the power source. Second is the big instantaneous blast of high volume, high velocity airflow that couldn't be obtained using a blower or air nozzles. When it comes to special effects, Super Air Amplifiers are the way to go. When you watch the movies or visit the theme parks and see fast moving fog, smoke effects, or objects flying through the air, chances are a Super Air Amplifier is being used.

Cleaning Brake Rotors

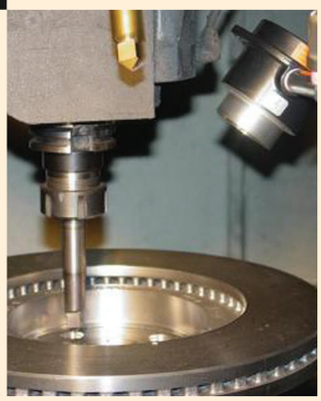
The Problem: An automotive machine shop that manufactures brake rotors was having problems with chip build-up inside the part. They tried compressed air tubing flattened on their ends with little success. This resulted in high compressed air usage, high sound levels, and danger to their employees.

The Solution: A **Model 120021 1-1/4" (32mm) Super Air Amplifier** was substituted for the tubing. It provided a larger pattern of air, used less compressed air, the sound level was substantially lower, and it couldn't be dead ended.

Comment: Bent tubing or drilled pipe are inexpensive and easy to make. However, the initial cost is over-shadowed by its high energy use; holes can be blocked and noise level is excessive – both of which are OSHA violations. EXAIR's Super Air Amplifiers are compact and dependable since there are no parts to wear out. Our patented design moves the most airflow possible while using the smallest amount of compressed air. The lower sound level was another bonus!



The Problem:



Model 120021 1-1/4" (32mm) Super Air Amplifier blows off parts and lowers sound levels.

The Solution:

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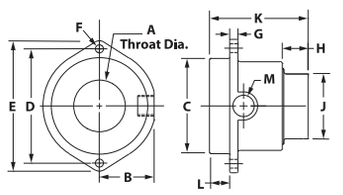
Super Air Amplifiers

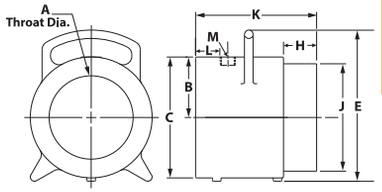
Super Air Amplifier Dimensions

Super Air Amplifier Dimensions													
Model #		A	B	C	D	E	F	G	H	J	K	L	M
120020	in	0.45	0.75	0.98	1.77	2.28	0.20	0.18	0.53	0.73	2.50	0.59	1/8 NPT
	mm	11	19	25	45	58	5	5	13	19	64	15	
120021	in	0.84	0.94	1.50	2.40	3.03	0.27	0.21	0.75	1.22	2.88	0.59	1/4 NPT
	mm	21	24	38	61	77	7	5	19	31	73	15	
120022	in	1.64	1.69	2.95	3.58	4.14	0.27	0.25	0.75	2	3	0.62	3/8 NPT
	mm	42	43	75	91	105	7	6	19	51	76	16	
120024	in	3.02	2.81	4.91	6.89	8.42	0.55	0.55	1.75	3.97	4.75	0.94	1/2 NPT
	mm	77	71	125	175	214	14	14	44	101	121	24	
120028	in	6.20	4.50	9	---	11.25	---	---	2.44	8	8.94	2.38	3/4 NPT
	mm	157	114	229	---	286	---	---	62	203	227	60	

DOWNLOAD drawings at EXAIR.com



Model 120020-120024

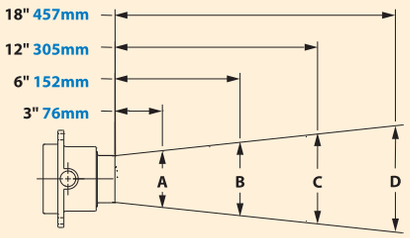


Model 120028

Air Amplifiers

Airflow Pattern

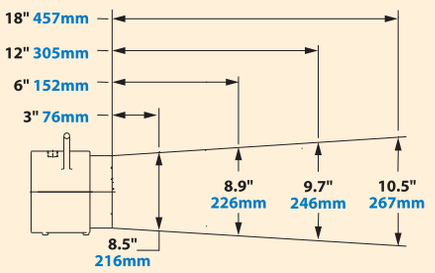
Models 120020, 120021, 120022, 120024



Model #		A	B	C	D
120020	in	1.25	2.2	4.1	6
	mm	32	56	104	152
120021	in	2	2.9	4.7	6.5
	mm	51	74	119	165
120022	in	2.75	3.55	5.15	6.75
	mm	70	90	131	171
120024	in	4.5	5.3	6.9	8.5
	mm	114	135	175	216

Airflow Pattern

Model 120028



Super Air Amplifier Models

Super Air Amplifier Only

Super Air Amplifier Kits -
include a Super Air Amplifier, shim set, filter separator and pressure regulator (with coupler).

Deluxe Super Air Amplifier Kits -
include a Super Air Amplifier, EFC, shim set, filter separator and pressure regulator (with coupler).

Super Air Amplifier Shim Sets -
include (1) .006" (0.15mm) and (1) .009" (0.23mm) stainless steel shims
(except 8" which include (1) .015" (0.39mm) stainless steel shim).

Outlet Diameter	Super Air Amplifier Only Model	Super Air Amplifier Kit Model	Deluxe Super Air Amplifier Kit Model	High Temperature Air Amplifier Only Model	High Temperature Air Amplifier Kit Model	Super Air Amplifier Shim Set Model
3/4" (19mm)	120020	120220	120220DX	N/A	N/A	120320
1-1/4" (32mm)	120021	120221	120221DX	121021	121221	120321
2" (51mm)	120022	120222	120222DX	N/A	N/A	120322
4" (102mm)	120024	120224	120224DX	N/A	N/A	120324
8" (203mm)	120028	120228	120228DX	N/A	N/A	120328

Kits include a Super Air Amplifier, shim set, filter separator and pressure regulator (with coupler).

Order EXAIR's EFC™ electronic flow control to minimize compressed air use. See page 7 for details.

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 with Gauge, 1/4 NPT, 50 SCFM (1,416 SLPM)
9033	Pressure Regulator with Gauge, 1/2 NPT, 100 SCFM (2,832 SLPM)
9009	Pressure Regulator with Gauge, 3/4 NPT, 220 SCFM (6,230 SLPM)

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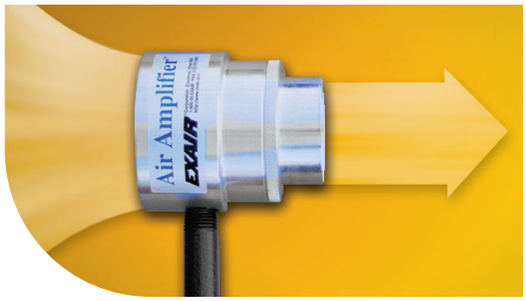
Adjustable Air Amplifier™



Highly effective air mover that easily adjusts to your application!

What Is The Adjustable Air Amplifier?

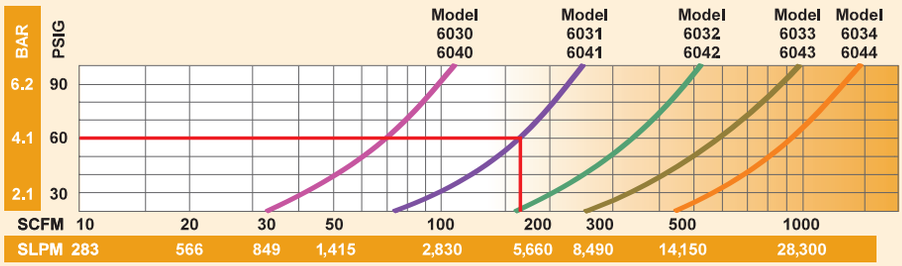
The air gap is infinitely adjustable which regulates the consumption and outlet flow from a "breeze" to a "blast". They are available in aluminum or in stainless steel for food service, higher temperatures (400°F/204°C), and corrosive applications. High Temperature Stainless Steel Air Amplifiers for temperatures up to 700°F (374°C) are also available. Please contact an Application Engineer.

Force and flow for the Adjustable Air Amplifier is changed by turning the exhaust end (with the knurled ring loose) to open or close the continuous air gap. When desired performance is obtained, the knurled ring can be tightened to lock the flow at that setting. In most cases, a .002" to .004" (0.05mm to 0.10mm) air gap is ideal.

Adjustable Air Amplifier Performance at 80 PSIG (5.5 BAR)

	Air Consumption		Amplification	Air Volume at Outlet		Air Volume at 6" (152mm)		Sound Level
Model #	SCFM	SLPM	RATIO	SCFM	SLPM	SCFM	SLPM	dBA
6030, 6040	8.9	252	10	89	2,520	267	7,560	78
6031, 6041	12.9	365	16	206	5,833	618	17,500	81
6032, 6042	21.5	608	20	430	12,176	1,290	36,529	82
6033, 6043	35.2	997	22	774	21,917	2,323	65,780	83
6034, 6044	50	1,416	24	1,200	33,980	3,600	101,941	84

Tested with .002" (0.05mm) gap.



Total Output Flow with .002" (0.05mm) gap setting. Excludes downstream entrainment.

Total Output Flow with .002" (0.05mm) gap setting. Excludes downstream entrainment.

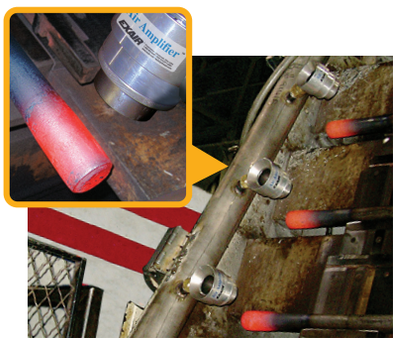
How To Determine Adjustable Air Amplifier Total Output Flow And Air Consumption

Total Airflow: From the performance curves (above), determine total output flow for any Adjustable Air Amplifier at any pressure.

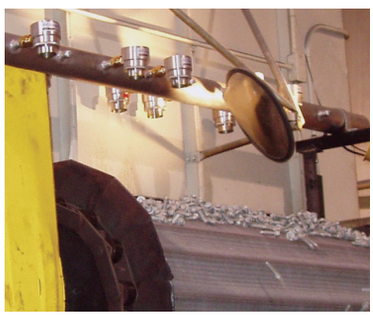
Example: A Model 6031 at 60 PSIG (4.1 BAR) supply air pressure has a total output flow of 165 SCFM (4,672 SLPM).

Air Consumption: Divide total output flow by the amplification ratio (shown in the chart) to determine air consumption for any Adjustable Air Amplifier at any air pressure.

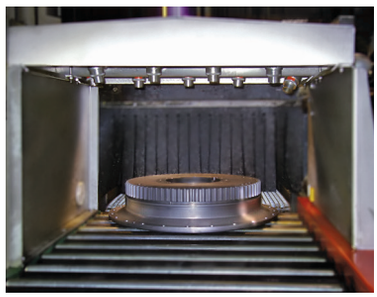
In the example above, the Model 6031 at 60 PSIG (4.1 BAR) supply air pressure has a total output flow of 165 SCFM (4,672 SLPM). Dividing this total flow by its amplification ratio of 16 gives an air consumption of 10.3 SCFM (292 SLPM).



Model 6042 2" (51mm) Adjustable Air Amplifiers with swivel fittings cool inductively heated axles prior to installing the hubs.



Metal parts are dried using a series of Model 6042 2" (51mm) Adjustable Air Amplifiers.



A series of Adjustable Air Amplifiers dry and cool a large machined casting as it exits a high temperature wash.

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Adjustable Air Amplifier Dimensions

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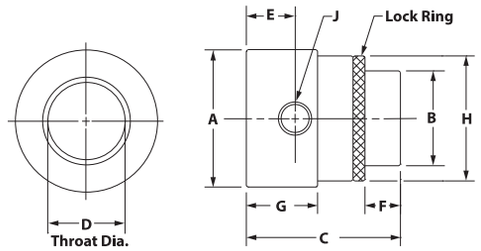
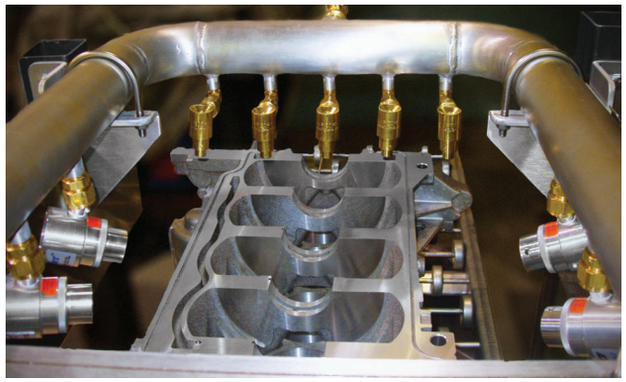
Built to Last 5 yr. WARRANTY See our Terms & Conditions





Adjustable Air Amplifiers and High Velocity Air Jets dry an engine block prior to assembly.

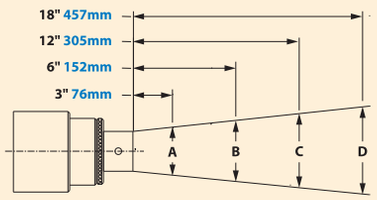
Adjustable Air Amplifier Dimensions										
Model #		A	B	C	D	E	F	G	H	J
6030 6040	in	1.50	0.75	2.22	0.45	0.72	0.56	1.06	1.25	1/8 NPT
	mm	38	19	57	11	18	14	27	32	
6031 6041	in	2	1.25	2.88	0.84	1	0.75	1.38	1.75	1/4 NPT
	mm	51	32	73	21	25	19	35	44	
6032 6042	in	3.13	2	3.25	1.64	1.06	0.75	1.50	2.75	3/8 NPT
	mm	79	51	83	42	27	19	38	70	
6033 6043	in	4	3	4.06	2.20	1.22	1.25	1.83	3.50	1/2 NPT
	mm	102	76	103	56	31	32	46	89	
6034 6044	in	5	4	5	3.02	1.50	1.75	2.13	4.50	1/2 NPT
	mm	127	102	127	77	38	44	54	114	

Need Swivels?

EXAIR's Swivel Fittings make it easy to adjust the aim of Air Amplifiers.

See page 68 for details.

Airflow Pattern



Model #		A	B	C	D
6030 6040	in	1.5	2.4	4.2	6
	mm	38	61	107	152
6031 6041	in	2	2.9	4.7	6.5
	mm	51	74	119	165
6032 6042	in	2.5	3.4	5.2	7
	mm	64	86	132	178
6033 6043	in	3.5	4.6	6.5	8
	mm	89	117	165	203
6034 6044	in	5	5.8	7.4	9
	mm	127	147	188	229

Adjustable Air Amplifier Systems

Adjustable Air Amplifier Models

Adjustable Air Amplifier Only

Adjustable Air Amplifier Kits - include an Adjustable Air Amplifier, filter separator and pressure regulator (with coupler).

Deluxe Adjustable Air Amplifier Kits - include an Adjustable Air Amplifier, EFC, filter separator and pressure regulator (with coupler).

Outlet Diameter	Aluminum Adjustable Air Amplifier Only Model	Aluminum Adjustable Air Amplifier Kit Model	Deluxe Aluminum Adjustable Air Amplifier Kit Model	Stainless Steel Adjustable Air Amplifier Only Model	Stainless Steel Adjustable Air Amplifier Kit Model	Deluxe Stainless Steel Adjustable Air Amplifier Kit Model
3/4" (19mm)	6040	6240	6240DX	6030	6230	6230DX
1-1/4" (32mm)	6041	6241	6241DX	6031	6231	6231DX
2" (51mm)	6042	6242	6242DX	6032	6232	6232DX
3" (76mm)	6043	6243	6243DX	6033	6233	6233DX
4" (102mm)	6044	6244	6244DX	6034	6234	6234DX

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 with Gauge, 1/4 NPT, 50 SCFM (1,416 SLPM)
9033	Pressure Regulator with Gauge, 1/2 NPT, 100 SCFM (2,832 SLPM)
9009	Pressure Regulator with Gauge, 3/4 NPT, 220 SCFM (6,230 SLPM)

Kits include an Adjustable Air Amplifier, filter separator and pressure regulator (with coupler).

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FLUIDAL, S.L. Pº Ubarburu,79 Pab.4 L.6 20.115 Astigarraga (Gipuzkoa) www.fluidal.com - fluidal@fluidal.com

Air Nozzles and Jets

Engineered Air Nozzles and Jets reduce noise levels and air costs.

"Go Green" by upgrading your blowoff, cooling and drying operation to award winning Super Air Nozzles!

Built to Last 5 yr. WARRANTY
See our Terms & Conditions

What Are Air Nozzles and Jets?

A simple solution to reduce excessive air consumption and noise levels on compressed air blowoff operations. EXAIR Air Nozzles and Jets produce outlet flows up to 25 times compressed air consumption using a small amount of compressed air as the power source. Many power companies now provide attractive rebates to plants who switch to engineered Super Air Nozzles!

Why Air Nozzles and Jets?

Air savings, compared to open copper tubes or pipes commonly used for blowoff, can be as high as 80%. Less compressed air means less noise. The typical noise level reduction is 10 dBA. All EXAIR Air Nozzles and Jets meet Occupational Safety and Health Administration (OSHA) maximum dead end pressure and sound level exposure requirements and carry the CE mark.

An open 1/4" (6mm) copper tube, by contrast, ejects pure compressed air **at up to 40 SCFM (1,133 SLPM), the entire output of a 10 horsepower compressor. Annual energy cost can exceed $1,000 per year. Noise levels in excess of 100 dBA are commonly produced.** When supply pressure exceeds 30 PSIG (2 BAR), an open pipe, tube or drilled holes violates OSHA static pressure requirements.

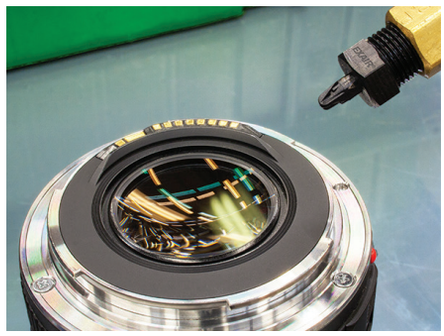
Applications

- Part cleaning
- Chip removal
- Part drying
- Liquid blowoff
- Part cooling
- Material conveying
- Part ejection
- Fiber conveying
- Air assist

Advantages

- Reduced compressed air cost
- 10 dBA average noise reduction
- Conserve compressed air
- Improved blowoff performance
- Compact
- Improved safety
- Meets OSHA noise level requirements
- Meets OSHA pressure requirements
- Improved production

Flexible Stay Set Hoses™ are ideal where frequent repositioning of air nozzles is required.



This PEEK material Atto Super Air Nozzle was chosen because of its non-marring quality for a blowoff application on a sensitive lens.

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Safe And Efficient Use Of Compressed Air

The inefficient use of compressed air for blowoff applications may create problems due to the energy costs, noise level and potential danger to personnel who are exposed to high pressure air. Open air pipes, copper tubes and drilled pipes are a few of the common abusers. They consume tremendous amounts of energy and often produce noise levels over 100 dBA.

Open Air Pipe or Copper Tube

Turbulent compressed air blasts straight out of the pipe or tube. It not only wastes huge amounts of compressed air but also violates OSHA noise and dead end pressure requirements.

Reduce Energy Costs

The best way to cut energy costs is through proper maintenance and use of the compressed air system. Leaks and dirty filters require maintenance on a regular basis. Energy savings can also be realized when replacing outdated compressor motors and controls with high efficiency models that often pay for themselves in a short period of time.

The most important factor to dramatically boost efficiency is proper use. Using engineered products like EXAIR's Super Air Nozzles can cut operating costs since they use only a fraction of the compressed air of typical blowoffs. In addition, all of the Air Nozzles and Jets shown in this catalog can be cycled on and off with an instantaneous response. EXAIR's EFC (shown on page 7) is an electronic flow control that limits compressed air use by turning on the air only when a part is present.

Reduce Noise Levels

High noise levels are a common problem for many plants. Compressed air noise often exceeds OSHA noise level exposure requirements, resulting in hearing loss to those working in close proximity. Noisy blowoffs at 80 PSIG (5.5 BAR) that produce noise levels of 100 dBA can be reduced to only 74 dBA when using a Super Air Nozzle. At that pressure, it is still possible to obtain hard-hitting force without the high noise.

OSHA Maximum Allowable Noise Exposure							
Hours per day (constant noise)	8	7	4	3	2	1	0.5
Sound level dBA	90	91	95	97	100	105	110

OSHA Standard 29 CFR - 1910.95 (a)

Eliminate Harmful Dead End Pressures

Air can be dangerous when the outlet pressure of a hole, hose or copper tube is higher than 30 PSIG (2 BAR). In the event the opening is blocked by a hand or other body part, air may enter the bloodstream through the skin, resulting in a serious injury. All of the Air Nozzles and Jets manufactured by EXAIR have been designed for safety. All are safe to be supplied with higher pressure compressed air and meet OSHA Standard 29 CFR 1910.242(b).

Air Consumption of Open Tube And Pipe

Pressure Supply			Air Consumption of Homemade Blowoffs					
			Copper Tube			Open Pipe		
PSIG	BAR		1/4"	5/16"	3/8"	1/8"	1/4"	3/8"
80	5.5	SCFM	33	58	87	70	140	240
		SLPM	934	1,641	2,462	1,981	3,962	6,792

Saving Money and Compressed Air

The table above shows the air consumption for typical homemade blowoffs. The pages that follow give the air consumption and other data on EXAIR's Air Nozzles and Jets.

Consider the following example where a Model 1102 Mini Super Air Nozzle replaces an 1/8" open pipe. The compressed air savings are easy to calculate and prove to be dramatic. Payout for Air Nozzles and Jets, including filter and installation cost is measured in weeks - not years, as is the case for other cost reduction equipment. Based on a 40 hour work week, 52 weeks a year.

Example:

1. Existing blowoff is 1/8" open pipe at 80 PSIG (5.5 BAR) supply. Air consumption, from the table above, is 70 SCFM (1,981 SLPM).
2. Use a 1/8 FNPT Model 1102 Mini Super Air Nozzle also at 80 PSIG (5.5 BAR) supply. Air consumption, from the table on page 54, is 10 SCFM (283 SLPM).
3. Compressed air saved = 70 - 10 = 60 SCFM (1,981 - 283 =1,698 SLPM)
4. For this example, the blowoff is continuous. If the duty cycle was 20%, then air saved would be 60 × .2 = 12 SCFM (1,698 × .2 = 340 SLPM).
5. Most large plants know their cost per 1,000 standard cubic feet of compressed air (10,000 standard liters). If you don't know your actual cost per 1,000 SCF, $0.25 is a reasonable average to use. (Cost per 10,000 standard liters is approximately $0.089.)
6. Dollars saved per hour = SCFM saved × 60 minutes × cost/1,000 SCF (SLPM saved × 60 min × cost/10,000 SL)
   = 60 × 60 × $0.25/1,000 (= 1,698 × 60 × $0.089/10,000)
   = $0.90/hour
   = $0.90/hr. is $36.00/week and
   = $1,872.00/year savings ***for One nozzle!***

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An INTELLIGENT COMPRESSED AIR® Product

Air Nozzles

CE OSHA Conflict Mineral-Free STANDARD FORCE

How Air Nozzles Work

Air Nozzles use the Coanda effect to amplify compressed airflow up to 25 times or more. As illustrated on the left, compressed air (black arrows) is ejected through a series of nozzles on the outer perimeter. As the air travels along the outer wall of the nozzle, surrounding air (blue arrows) is entrained into the stream. The airstream that results is a high volume, high velocity blast of air **at minimal consumption.** The air is always ejected so it can vent safely, **well below OSHA dead end pressure requirements**, should the nozzle end be blocked.

Selecting The Right Air Nozzle

EXAIR manufactures a wide selection of Air Nozzles and Jets, which are divided into two groups. The first group includes Air Nozzles and Jets that deliver force up to 22 ounces (624 grams) and are suitable for most applications. The second group includes Air Nozzles that produce high force up to 23 lbs (10.43 kg) where additional reach and force are required.

- **Type 303 Stainless Steel-** high temperatures and corrosive environments. Max temp 800°F (426°C)
- **Type 316 Stainless Steel-** high temperatures, corrosive environments, and mechanical wear. Max temp 1000°F (538°C)
- **Brass-** general purpose applications. Max temp 400°F (204°C)
- **Zinc aluminum alloy-** general purpose applications. Max temp 250°F (121°C)
- **PEEK-** replaces metals in harsh environments. Offers chemical resistance, non-marring. Max temp 320°F (160°C)

Air Nozzles And Jets Comparison (sorted by compressed air consumption at 80 PSIG (5.5 BAR))

Model	Material	Description	Inlet	Air Consumption		Force		Sound Level dBA	More Details
				SCFM	SLPM	Ozs	Grams		
1108SS	Stainless Steel - Type 316	Atto Super Air Nozzle	M4 x 0.5	2.5	71	2.0*	57	58	p. 55
1108-PEEK	PEEK (Plastic)	Atto Super Air Nozzle	M4 x 0.5	2.5	71	2.0*	57	58	p. 55
1108SS-NPT	Stainless Steel - Type 316	Atto Super Air Nozzle	1/8 MNPT	2.5	71	2.0*	57	58	p. 55
1108-PEEK-NPT	PEEK (Plastic)	Atto Super Air Nozzle	1/8 MNPT	2.5	71	2.0*	57	58	p. 55
1109SS	Stainless Steel - Type 316	Pico Super Air Nozzle	M5 x 0.5	4.9	139	5.0*	142	68	p. 55
1109-PEEK	PEEK (Plastic)	Pico Super Air Nozzle	M5 x 0.5	4.9	139	5.0*	142	68	p. 55
1109SS-NPT	Stainless Steel - Type 316	Pico Super Air Nozzle	1/8 MNPT	4.9	139	5.0*	142	68	p. 55
1109-PEEK-NPT	PEEK (Plastic)	Pico Super Air Nozzle	1/8 MNPT	4.9	139	5.0*	142	68	p. 55
1110SS	Stainless Steel - Type 316	Nano Super Air Nozzle	M6 x 0.75	8.3	235	8.1*	230	75	p. 55
1110-PEEK	PEEK (Plastic)	Nano Super Air Nozzle	M6 x 0.75	8.3	235	8.1*	230	75	p. 55
1110SS-NPT	Stainless Steel - Type 316	Nano Super Air Nozzle	1/8 MNPT	8.3	235	8.1*	230	75	p. 55
1110-PEEK-NPT	PEEK (Plastic)	Nano Super Air Nozzle	1/8 MNPT	8.3	235	8.1*	230	75	p. 55
1001	Brass	Safety Air Nozzle	1/8 FNPT	10	283	9*	255	78	p. 60
1102	Zinc Aluminum alloy	Mini Super Air Nozzle	1/8 FNPT	10	283	9*	255	71	p. 56
1102-PEEK	PEEK (Plastic)	Mini Super Air Nozzle	1/8 FNPT	10	283	9*	255	71	p. 56
1102SS	Stainless Steel - Type 316	Mini Super Air Nozzle	1/8 FNPT	10	283	9*	255	71	p. 56
1103	Zinc Aluminum alloy	Mini Super Air Nozzle	1/8 MNPT	10	283	9*	255	71	p. 56
1103SS	Stainless Steel - Type 316	Mini Super Air Nozzle	1/8 MNPT	10	283	9*	255	71	p. 56
1126	Zinc Aluminum alloy	1" Flat Super Air Nozzle	1/8 FNPT	10.5	297	9.8†	278	75	p. 57
1126SS	Stainless Steel - Type 316	1" Flat Super Air Nozzle	1/8 FNPT	10.5	297	9.8†	278	75	p. 57
1010SS	Stainless Steel - Type 303	Micro Air Nozzle	1/8 MNPT	13	368	12*	340	80	p. 55
1009	Aluminum	Adjustable Air Nozzle	1/8 MNPT	13	368	12**	340	79	p. 60
1009SS	Stainless Steel - Type 303	Adjustable Air Nozzle	1/8 MNPT	13	368	12**	340	79	p. 60
1100	Zinc Aluminum alloy	Super Air Nozzle	1/4 FNPT	14	396	13*	369	74	p. 56
1100-PEEK	PEEK (Plastic)	Super Air Nozzle	1/4 FNPT	14	396	13*	369	74	p. 56
1100SS	Stainless Steel - Type 316	Super Air Nozzle	1/4 FNPT	14	396	13*	369	74	p. 56
1101	Zinc Aluminum alloy	Super Air Nozzle	1/4 MNPT	14	396	13*	369	74	p. 56
1101SS	Stainless Steel - Type 316	Super Air Nozzle	1/4 MNPT	14	396	13*	369	74	p. 56
1002	Brass	Safety Air Nozzle	1/4 FNPT	17	481	16*	454	80	p. 60
1002SS	Stainless Steel - Type 303	Safety Air Nozzle	1/4 FNPT	17	481	16*	454	80	p. 60
1003	Brass	Safety Air Nozzle	3/8 FNPT	18	509	18*	510	83	p. 60
6019	Brass	Adjustable Air Jet	1/8 MNPT	18	509	16***	454	83	p. 61
6019SS	Stainless Steel – Type 303	Adjustable Air Jet	1/8 MNPT	18	509	16***	454	83	p. 61
6013	Brass	High Velocity Air Jet	1/8 MNPT	22	622	20†	567	82	p. 61
6013SS	Stainless Steel – Type 303	High Velocity Air Jet	1/8 MNPT	22	622	20†	567	82	p. 61
1122	Zinc Aluminum alloy	2" Flat Super Air Nozzle	1/4 FNPT	22	622	22†	624	77	p. 57
1122SS	Stainless Steel - Type 316	2" Flat Super Air Nozzle	1/4 FNPT	22	622	22†	624	77	p. 57
1144	Zinc Aluminum/Steel	2" Super Air Scraper	1/4 FNPT	22	622	22†	624	77	p. 57
1004SS	Stainless Steel - Type 316	Back Blow Air Nozzle	M4 x 0.5	4.5	127	NA	NA	75	p. 59
1006SS	Stainless Steel - Type 316	Back Blow Air Nozzle	1/4 FNPT	22	622	NA	NA	80	p. 59

For High Force Air Nozzles, see page 63.

FNPT = NPT Female
MNPT = NPT Male.

* Force measured at 12" (305mm) from target.
** Force measured at 12" (305mm) from target with a .008" (0.20mm) factory setting.
*** Force measured at 12" (305mm) from target with a .006" (0.15mm) factory setting.

All sound levels measured at 3 feet (914mm).
All measurements taken at 80 PSIG (5.5 BAR).
† Force measured at 12" (305mm) from target with a .015" (0.38mm) shim installed.

For Technical Assistance, Call an EXAIR Application Engineer 1-800-903-9247
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An INTELLIGENT COMPRESSED AIR® Product

Atto Super Air Nozzles™

(actual size)

Model 1108SS M4 x 0.5
Material: Type 316 Stainless Steel

Model 1108-PEEK M4 x 0.5
Material: PEEK (plastic)

Model 1108SS-NPT 1/8 NPT male
Material: Type 316 Stainless Steel

Model 1108-PEEK-NPT 1/8 NPT male
Material: PEEK (plastic)

Model 1108SS, 1108-PEEK, 1108SS-NPT, 1108-PEEK-NPT Atto Super Air Nozzle

EXAIR's Atto Super Air Nozzle delivers the smallest, most precise blowoff. The air pattern for this tiny nozzle is focused, measuring 1.0" in diameter when positioned 6" away from the surface. The 58 dBA noise level is a fraction of ordinary air nozzles.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
2.5	71	2.0	57	58

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Pico Super Air Nozzles™

(actual size)

Model 1109SS M5 x 0.5
Material: Type 316 Stainless Steel

Model 1109-PEEK M5 x 0.5
Material: PEEK (plastic)

Model 1109SS-NPT 1/8 NPT male
Material: Type 316 Stainless Steel

Model 1109-PEEK-NPT 1/8 NPT male
Material: PEEK (plastic)

Model 1109SS, 1109-PEEK, 1109SS-NPT, 1109-PEEK-NPT Pico Super Air Nozzle

EXAIR's Pico Super Air Nozzle delivers a precise blowoff with a highly focused, forceful blast of airflow. The narrowly focused air pattern measures 1.3" in diameter at 6" away from the surface. The noise level is only 68 dBA.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
4.9	139	5.0	142	68

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Nano Super Air Nozzles™

(actual size)

Model 1110SS M6 x 0.75
Material: Type 316 Stainless Steel

Model 1110-PEEK M6 x 0.75
Material: PEEK (plastic)

Model 1110SS-NPT 1/8 NPT male
Material: Type 316 Stainless Steel

Model 1110-PEEK-NPT 1/8 NPT male
Material: PEEK (plastic)

Model 1110SS, 1110-PEEK, 1110SS-NPT, 1110-PEEK-NPT Nano Super Air Nozzle

EXAIR's Nano Super Air Nozzle delivers a highly focused, forceful blast of airflow. The air pattern for this small nozzle measures 1.5" in diameter at 6" away from the surface. The noise level is a low 75 dBA. Overall length measures only 0.78".

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
8.3	235	8.1	230	75

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Micro Air Nozzle™

(actual size)

Model 1010SS 1/8 NPT male
Material: Type 303 Stainless Steel

Model 1010SS Micro Air Nozzle

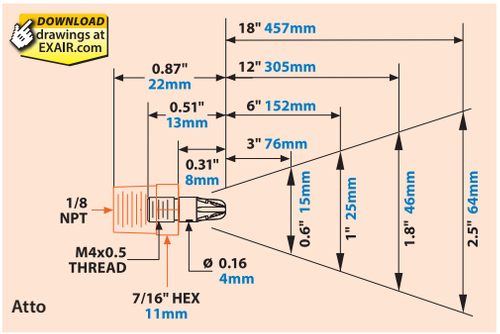
EXAIR's Micro Air Nozzle optimizes entrainment for a directed, high volume, high velocity airflow. The compact size permits mounting where space is limited. Sound level and air consumption are low.

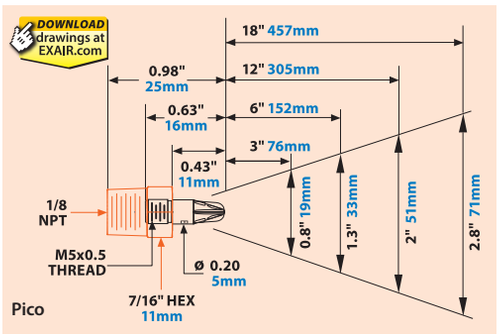
Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
13	368	12	340	80

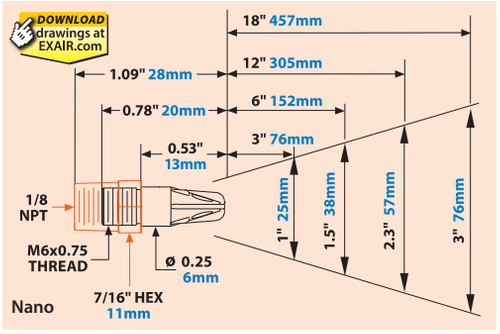
* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

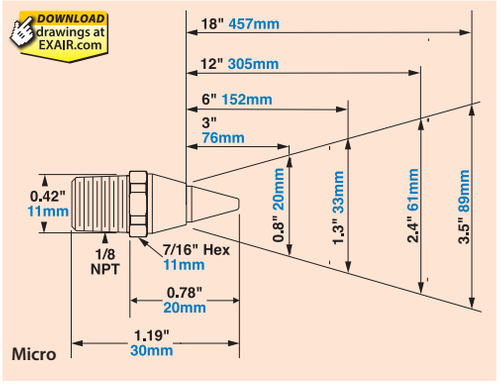
The Air Nozzles and Jets shown on pages 55 – 61 deliver up to 22 ounces (624 grams) of force, making them suitable for most applications. All models shown use a small amount of compressed air to entrain large volumes of surrounding room air. They have been engineered to provide the best performance with low sound levels and high efficiency.

Dimensions and Airflow Patterns









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An INTELLIGENT COMPRESSED AIR® Product

Air Nozzles

Mini Super Air Nozzles™

Model 1102 1/8 NPT female
Material: Zinc Aluminum alloy
Model 1102-PEEK 1/8 NPT female
Material: PEEK (plastic)
Model 1102SS 1/8 NPT female
Material: Type 316 Stainless Steel

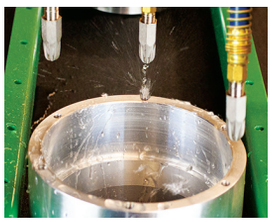
Model 1103 1/8 NPT male
Material: Zinc Aluminum alloy
Model 1103SS 1/8 NPT male
Material: Type 316 Stainless Steel

Model 1102, 1102-PEEK, 1102SS, 1103 and 1103SS Mini Super Air Nozzles

The 1/8 NPT Mini Super Air Nozzles provide a forceful, concentrated stream of high velocity airflow. It has fewer holes than the larger Super Air Nozzles, resulting in lower sound levels, air consumption and force.

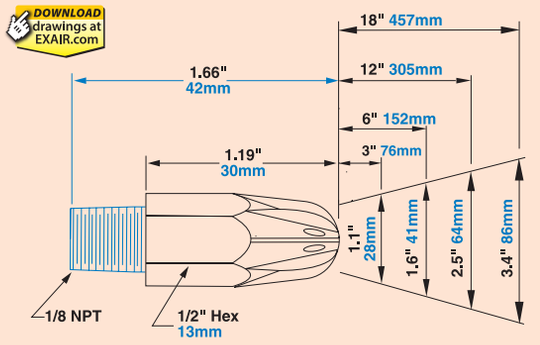
Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
10	283	9	255	71

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).



Super Air Nozzles with Stay Set Hoses provide adjustability and precision.

Dimensions and Airflow Pattern



Super Air Nozzles™

Model 1100 1/4 NPT female
Material: Zinc Aluminum alloy
Model 1100SS 1/4 NPT female
Material: Type 316 Stainless Steel

Model 1100-PEEK 1/4 NPT female
Material: PEEK (plastic)

Model 1101 1/4 NPT male
Material: Zinc Aluminum alloy
Model 1101SS 1/4 NPT male
Material: Type 316 Stainless Steel

The aerodynamic design of the Model 1100 Super Air Nozzle directs air to a single point of convergence.

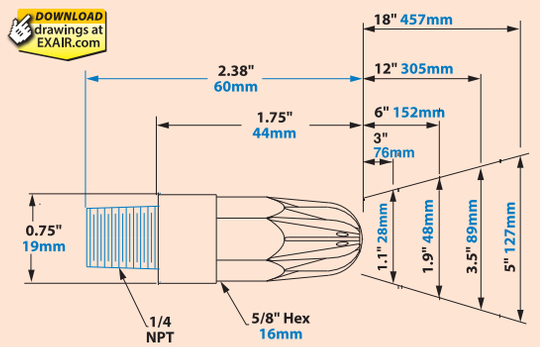
Model 1100, 1100SS, 1100-PEEK, 1101 and 1101SS Super Air Nozzles

EXAIR's award winning Super Air Nozzles deliver high performance suitable for a wide range of blowoff, drying and cooling applications. The aerodynamic design of this engineered Super Air Nozzle directs the air to a single point of convergence, delivering hard-hitting force. It dramatically reduces air consumption and, in many cases, can cut the noise level in half. All Super Air Nozzles eject the compressed air through holes located in recessed grooves that cannot be blocked or dead ended.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
14	396	13	369	74

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Dimensions and Airflow Pattern



Most EXAIR Air Nozzles have a standard hex base making them easy to install with a socket wrench.

Build Your Own System

EXAIR's Swivel Fittings, available for all our nozzles up to 1 NPT, make it easy to adjust the aim of the Air Nozzles and Jets. Correct placement of the blowing angle can help optimize performance, reduce noise levels and improve efficiency. See page 68 for details.

Swivel Fittings can be added to most EXAIR Nozzles by adding a "W" to the Model#.

1122 (2" Flat Super Air Nozzle)
+ W (Swivel Fitting)
1122W

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Flat Super Air Nozzles

An INTELLIGENT COMPRESSED AIR® Product

Flat Super Air Nozzles™

Model 1126 1/8 NPT female
Material: Zinc Aluminum alloy

Model 1126SS 1/8 NPT female
Material: Type 316 Stainless Steel

Shim sets for the 1" Flat Super Air Nozzles include a .005" (0.13mm), .010" (0.25mm), and .020" (0.51mm) thick shim.

1136SS	Stainless Steel 1" Flat Super Air Nozzle Shim Set

Model 1126, 1126SS, 1122 and 1122SS 1" and 2" Flat Super Air Nozzles

EXAIR's 1" and 2" Flat Super Air Nozzles are highly efficient, unique flat air nozzles. Their patented† design uses a special shim to maintain the critical position of the component parts. A precise amount of air is released through the thin slot, across a flat surface. The result is a wide, forceful stream of high velocity, laminar airflow with minimal air consumption and noise.

†Patent #5402938

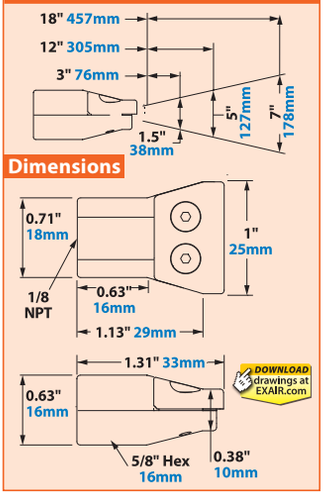
	Air Consumption		Force *		Sound Level
Model	SCFM	SLPM	Ozs	Grams	dBA
1126/1126SS	10.5	297	9.8	278	75

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR)
.015" (0.38mm) shim installed.

2013 Plant Engineering PRODUCT of the YEAR Gold Award

GOLDEN MOUSETRAP AWARDS 2013 FINALIST

1" Flat Super Air Nozzle Airflow Pattern



Model 1122 1/4 NPT female
Material: Zinc Aluminum alloy

Model 1122SS 1/4 NPT female
Material: Type 316 Stainless Steel

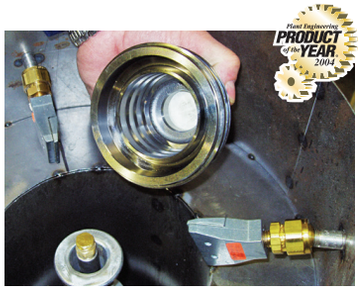
Shim sets for the 2" Flat Super Air Nozzles include a .005" (0.13mm), .010" (0.25mm), and .020" (0.51mm) thick shim.

1132SS	Stainless Steel 2" Flat Super Air Nozzle Shim Set

The 1" and 2" Flat Super Air Nozzles are shipped with a .015" (0.38mm) air gap opening that is set with a stainless steel shim positioned between the cap and the body. Force and flow may be easily increased or decreased by installing a different shim.

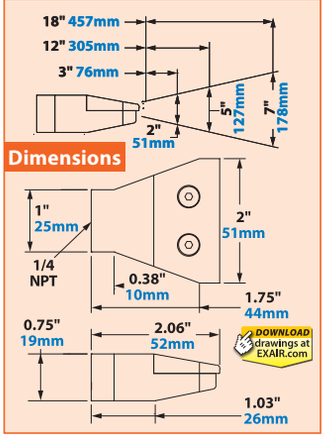
	Air Consumption		Force *		Sound Level
Model	SCFM	SLPM	Ozs	Grams	dBA
1122/1122SS	21.8	622	22	624	77

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).
.015" (0.38mm) shim installed.



2" Flat Super Air Nozzles blow off metal parts as they are lifted through a vacuum chamber.

2" Flat Super Air Nozzle Airflow Pattern



Super Air Scraper™

Model 1144 1/4 NPT female
Material: Zinc Aluminum alloy/Steel

Shim sets for the 2" Flat Super Air Nozzles include a .005" (0.13mm), .010" (0.25mm), and .020" (0.51mm) thick shim.

1132SS	Stainless Steel 2" Flat Super Air Nozzle Shim Set

Model 1144 2" Super Air Scraper

EXAIR's 2" Super Air Scraper is a patented nozzle† used to eliminate stubborn debris from work or machine surfaces. This 2" flat nozzle utilizes a corrosion resistant scraper blade to provide the needed leverage to get underneath and scrape away fixed debris before the air can remove it from a surface. Applications include removal of tape, gaskets, adhesive, labels and stickers, grease, paint and sealant. A scraper nozzle can assist in cleaning sub plates, machining tables and difficult to sweep metal chips, flakes or discs. They are ideal when used as a Soft Grip Super Air Scraper (see page 123).

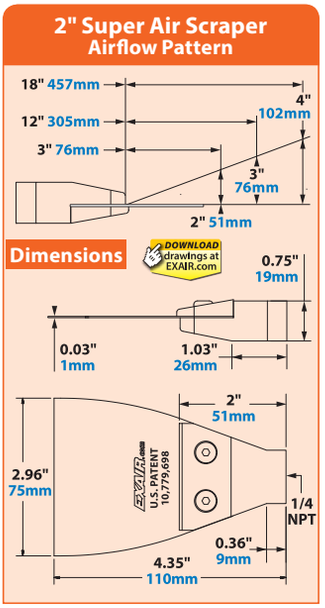
†Patent #10,779,698

	Air Consumption		Force *		Sound Level
Model	SCFM	SLPM	Ozs	Grams	dBA
1144	21.8	622	22	624	77

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).
.015" (0.38mm) shim installed.

2" Super Air Scraper can eliminate stubborn debris.

2" Super Air Scraper Airflow Pattern



†Patent #10,779,698

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EXAIR® Blows Away the Competition!

Save Over $1,200 Per Year By Replacing One Outdated Air Nozzle!

We've all seen flat air nozzles. Some are yellow. Others are orange. The oldest ones are blue or metal. Those other manufacturers want you to believe you'll save money by conserving compressed air while protecting your workers from harmful noise levels. In reality, those colorful air nozzles that blow the air out of holes consume enormous amounts of air. The plastic ones often break off. Some might even get you an OSHA fine due to the dangerous dead ended pressures that exist if someone blocks the air exhaust.

EXAIR's award winning **2" Flat Super Air Nozzle™** has been engineered to replace those outdated flat nozzles. There are no dangerous holes that can be blocked. EXAIR's patented, award winning design is efficient, maintaining a precise amount of airflow through a thin slot. The result is a forceful stream of high velocity, laminar airflow with minimal air consumption and noise. You can increase or decrease the force of each flat air nozzle – using shims to tune it to the application so you'll never waste compressed air. EXAIR also offers a **1" Flat Super Air Nozzle™,** with the same laminar airflow, to fit in tighter spaces.

Flat nozzles from other manufacturers can consume over 30 SCFM (a refrigerator sized compressor) and aren't adjustable. Some manufacturers offer different flow rates but you need to guess at which one will do the job since you can't adjust them once you've made the purchase. By default, most users feel bigger is better and go with the highest flow rate, wasting compressed air. See page 57 for more details.

EXAIR's 2" Flat Super Air Nozzle	Theirs (Old Technology)
• 2004 Product Of The Year Winner	• Can consume over 30 SCFM
• Your choice of zinc/aluminum or Type 316 stainless steel	• Expensive – metal or plastic
• Flexible Stay Set Hoses™, swivel fittings and magnetic bases are available	• No easy adjustment – wasted compressed air
• Meets or exceeds OSHA standards	• May not be OSHA safe
• Quietest flat nozzle available	• Significantly louder
• Easy to change the force and flow	• Plastic is easily broken

Here's how:

- One popular flat nozzle consumes 31 SCFM @ 80 PSIG.
- EXAIR's 2" Flat Super Air Nozzle with .015" shim consumes 21.8 SCFM @ 80 PSIG.
- 31 SCFM (theirs) – 21.8 SCFM (EXAIR's) = 9.2 SCFM compressed air saved.

Most large plants know their cost per 1,000 standard cubic feet of compressed air. If you don't know your actual cost per 1,000 SCF, 25¢ is a reasonable average to use.

- SCFM saved × 60 minutes × cost/1,000 SCF = dollars saved per hour.
- In this case, 9.2 SCFM × 60 × .25/1,000 SCF= **13.8 *cents saved per hour.***
- 13.8 cents per hour × 24 hours = **$3.31 *saved per day.***
- $3.31 per day × 365 days = **$1,208.88 *saved in one year*** (in this 24/7 operation).

And, This Savings Is For One Nozzle!

Air Nozzle	Air Consumption @ 80 PSIG	Noise Level dBA	lbs. of Force @ 80 PSIG
Yellow	29 SCFM	83	1.7
Orange	28 SCFM	82	1.7
Blue	26 SCFM	78	1.5
Metal (machined)	29 SCFM	82	1.7
Metal (cast)	31 SCFM	80	1.9
EXAIR 2" Flat Super Air Nozzle	***7.3- 30 SCFM**	**62-81**	**0.5 – 1.9**

*Air consumption dependent upon shim size.

EXAIR's 2" Flat Super Air Nozzle can pay for itself in less than 27 days.

Put the 2" Flat Super Air Nozzle to work in your blowoff, cooling or drying application. We're sure you'll agree that it blows away the competition!

EXAIR
For Technical Assistance, Call an EXAIR Application Engineer 1-800-903-9247
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EXAIR BLOG

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Back Blow Air Nozzles

An INTELLIGENT COMPRESSED AIR® Product

M4 Back Blow Air Nozzle

Model 1004SS M4 x 0.5
Material: Type 316 Stainless Steel

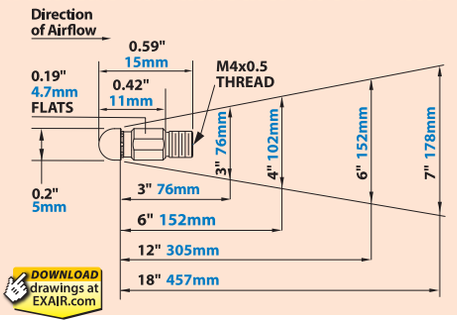
Model 1004SS Back Blow Air Nozzle

EXAIR's M4 Back Blow Air Nozzle delivers the smallest, most effective airflow for cleaning out small diameter tubes, pipes, channels or holes. Its forceful airflow can be used on diameters as small as 1/4" (6.3mm) and up to 1" (25.4mm). Extensions for reaching farther into a pipe, tube, hose, channel or hole are available.

	Air Consumption		Sound Level*	Use With:
Model	SCFM	SLPM	dBA	Inside Diameters
1004SS	4.5	127	75	1/4" - 1" (6.3-25.4mm)

* Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Dimensions and Airflow Pattern



1/4 NPT Back Blow Air Nozzle

Model 1006SS 1/4 NPT female
Material: Type 316 Stainless Steel

Model 1006SS Back Blow Air Nozzle

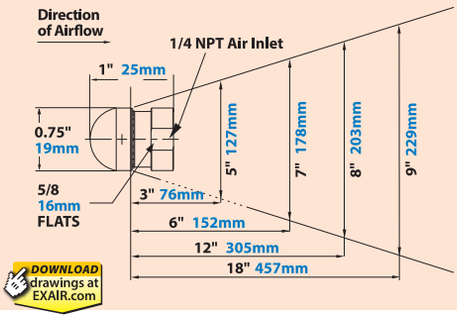
The 1/4 NPT Back Blow Air Nozzle delivers high performance suitable for a wide range of diameters. Recommended diameter range is 7/8"- 4" (22-102mm). A large variety of extensions for reaching farther into a pipe, tube, hose, channel or hole are available.

	Air Consumption		Sound Level*	Use With:
Model	SCFM	SLPM	dBA	Inside Diameters
1006SS	22	622	80	7/8"– 4" (22–102mm)

* Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

2015 Plant Engineering PRODUCT of the YEAR Bronze Award

Dimensions and Airflow Pattern



1 NPT Back Blow Air Nozzle

Model 1008SS 1 NPT female
Material: Type 316 Stainless Steel

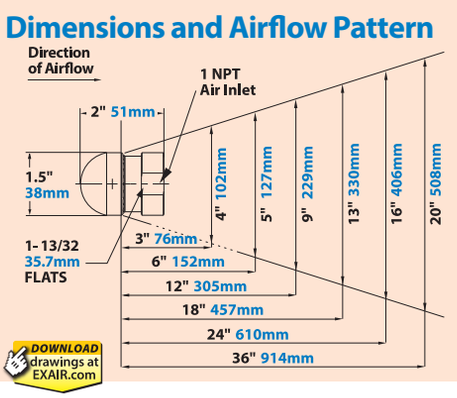
Model 1008SS Back Blow Air Nozzle

EXAIR's largest Back Blow Air Nozzle produces the greatest force for stubborn, sticky materials which may be inside of pipes, tubes, channels or holes. It is capable of reaching into diameters from 2"-16" (51-406mm) so it can handle small and large diameters. Extensions are available.

	Air Consumption		Sound Level*	Use With:
Model	SCFM	SLPM	dBA	Inside Diameters
1008SS	57	1,614	89	2" - 16" (51-406mm)

* Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Dimensions and Airflow Pattern

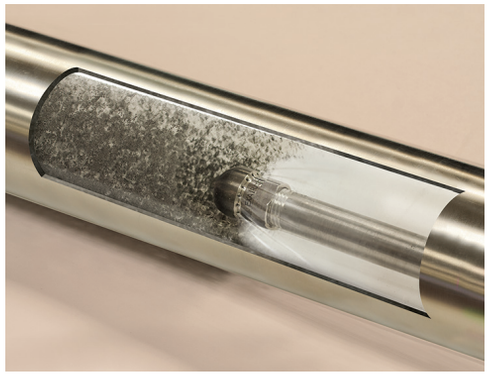


Chip Shields should be used to protect operators from debris. A Model 901650 Chip Shield is for M4 x 0.5 extensions and a Model 901222 is available for 1/4 NPT extensions.

Aluminum Extension Pipe

Extensions provide the necessary reach to clean out your pipe, tube, hose or channel. Available up to 72" (1829mm) long.

Model	Description
9492	6" (152mm) Aluminum, M4 x 0.5
9493	12" (305mm) Aluminum, M4 x 0.5
9495	24" (610mm) Aluminum, M4 x 0.5
9497	36" (914mm) Aluminum, M4 x 0.5
9188	12" (305mm) Aluminum, 1/4 NPT
9189	18" (457mm) Aluminum, 1/4 NPT
9190	24" (610mm) Aluminum, 1/4 NPT
9191	36" (914mm) Aluminum, 1/4 NPT
9192	48" (1219mm) Aluminum, 1/4 NPT
9193	60" (1524mm) Aluminum, 1/4 NPT
9194	72" (1829mm) Aluminum, 1/4 NPT
900353	12" (305mm) Aluminum, 1 NPT
901254	36" (914mm) Aluminum, 1 NPT
901259	72" (1829mm) Aluminum, 1 NPT



A Back Blow Air Nozzle cleans chips and coolant from inside a machined pipe.

Safety Air Nozzles

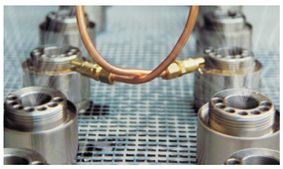
Safety Air Nozzles

Model 1001 1/8 NPT female
Material: Brass

Model 1002 1/4 NPT female
Material: Brass

Model 1002SS 1/4 NPT female
Material: Type 303 Stainless Steel

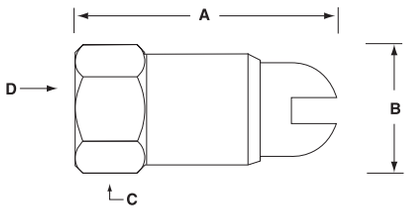
Model 1003 3/8 NPT female
Material: Brass



Oddly shaped parts often require a combination of Safety Nozzles for blowoff.

Model 1001, 1002, 1002SS and 1003 Safety Air Nozzles

Safety Air Nozzles eject a small amount of compressed air 360° around the outer ring that combines with the air ejected from the center hole to produce a high volume, high velocity blast of air. The slotted end allows air to vent safely should the nozzle end be blocked.



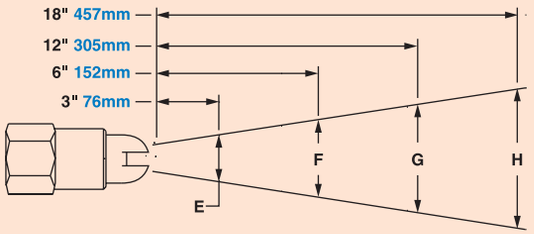
Air Consumption			Force*		Sound Level
Model	SCFM	SLPM	Ozs	Grams	dBA
1001	10	283	9	255	78
1002	17	481	16	454	80
1002SS	17	481	16	454	80
1003	18	509	18	510	83

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Dimensions		A	B	C	D
Model				Hex	Inlet
1001	in	1.19	0.38	1/2	1/8 NPT
	mm	30	10	13	
1002 1002SS	in	1.44	0.50	5/8	1/4 NPT
	mm	37	13	16	
1003	in	1.65	0.63	3/4	3/8 NPT
	mm	42	16	19	

Airflow Pattern

DOWNLOAD drawings at EXAIR.com



Model		E	F	G	H
1001	in	1.1	2.1	4.1	6.0
	mm	28	53	104	152
1002 1002SS	in	1.3	2.3	4.4	6.5
	mm	33	58	112	165
1003	in	1.3	2.4	4.7	7.0
	mm	33	61	119	178

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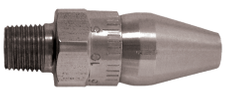
Contact an Application Engineer at 1-800-903-9247.

Send in your air nozzle for the Award Winning EXAIR Efficiency Lab Service

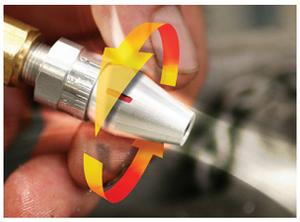
We will test your existing product for air use, noise and force. We'll compare it to our Intelligent Compressed Air® products and provide a full report to help improve your process.

Adjustable Air Nozzles



Model 1009 1/8 NPT male
Material: Aluminum

Model 1009SS 1/8 NPT male
Material: Type 303 Stainless Steel



Adjustable Air Nozzles are perfect for a variety of blowoff applications.

Model 1009 and 1009SS Adjustable Air Nozzles

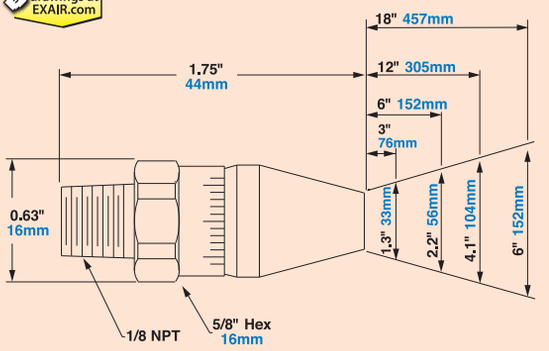
Adjustable Air Nozzles are suitable for a wide variety of blowoff applications. The design allows you to "tune in" the force and flow to the application requirements, thereby minimizing air consumption. A micrometer-like dial indicates the gap setting. A set screw in the end can be tightened so the air nozzle holds the setting.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
13	368	12	340	79

* Force measured at 12" (305mm) from target with a .008" (0.20mm) factory setting.
Sound level measure d at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Dimensions and Airflow Pattern

DOWNLOAD drawings at EXAIR.com



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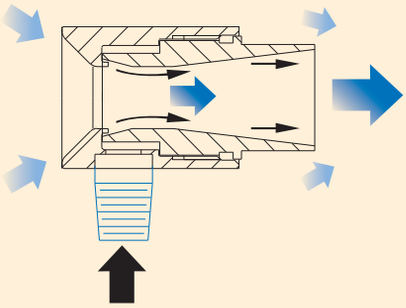
An INTELLIGENT COMPRESSED AIR® Product

How Air Jets Work

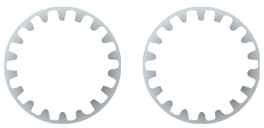
Air Jets utilize the Coanda effect (wall attachment of a high velocity fluid) to produce air motion in their surroundings. As illustrated on the right, a small amount of compressed air (black arrows) is throttled through an internal ring nozzle above sonic velocity. A vacuum is produced, pulling large volumes of surrounding, or "free" air, through the jet (blue arrows). **Both the outlet and inlet can be ducted for remote positioning. If the end is blocked, flow simply reverses at well below OSHA dead end pressure requirements.**



High Velocity Air Jets

Model 6013 1/8 NPT male
Material: Brass
Max Temp: 275°F (135°C)

Model 6013SS 1/8 NPT male
Material: Type 303 Stainless Steel
Max Temp: 400°F (204°C)



Material: Type 303 Stainless Steel

Model 6013 and 6013SS High Velocity Air Jets

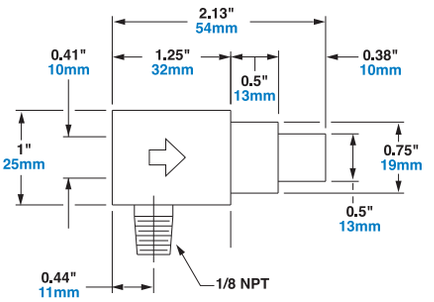
Provides maximum thrust with a confined, directed airstream. It is the best choice for part ejection, chip removal, and part drying.

Shim Sets: Shims can be used to change the gap on the Model 6013 and 6013SS High Velocity Air Jet.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
22	622	20	567	82

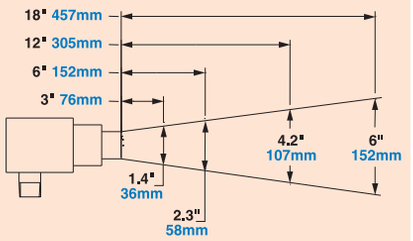
* Force measured at 12" (305mm) from target with a .015" (0.38mm) shim installed.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

The Model 6313 Air Jet Shim Set for the High Velocity Air Jet includes a .006" (0.15mm) and a .009" (0.23mm) thick shim. A .015" (0.38mm) shim comes installed with the Model 6013 and 6013SS Air Jet.



Airflow Pattern

DOWNLOAD drawings at EXAIR.com



Adjustable Air Jets

Model 6019 1/8 NPT male
Material: Brass
Max Temp: 275°F (135°C)

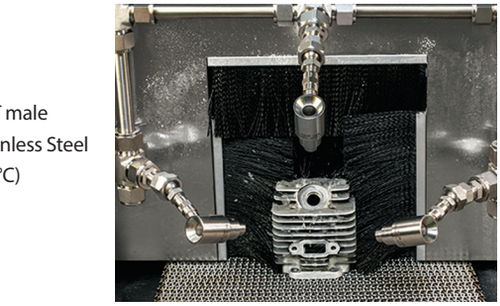
Model 6019SS 1/8 NPT male
Material: Type 303 Stainless Steel
Max Temp: 400°F (204°C)

Model 6019 and 6019SS Adjustable Air Jets

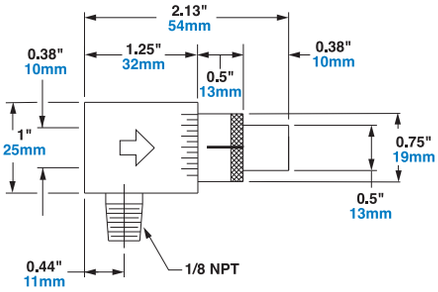
This is an adjustable version of the Model 6013 High Velocity Air Jet. Airflow and thrust are easily adjusted using the micrometer gap indicator.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
18	509	16	454	83

* Force measured at 12" (305mm) from target with a .006" (0.15mm) setting.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

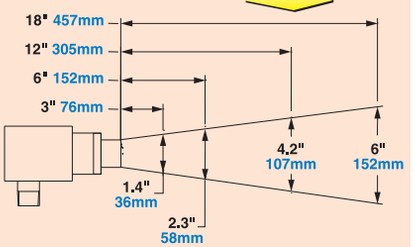


A combination of Model 6013SS High Velocity Air Jets dry this chainsaw cylinder head.



Airflow Pattern

DOWNLOAD drawings at EXAIR.com



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FLUIDAL, S.L. Pº Ubarburu,79 Pab.4 L.6 20.115 Astigarraga (Gipuzkoa) www.fluidal.com - fluidal@fluidal.com

How Much Air Does It Really Use?

The amount of compressed air wasted by copper tubes, drilled pipe and other compressed air blowoffs can easily cost thousands of dollars per year. To quantify it, air consumption can be translated into electrical energy use. One horsepower of compressor (746 Watts) generates 4 to 5 SCFM (113 to 142 SLPM). The SCFM (SLPM) output depends on the efficiency of the compressor. Wasteful blowoffs can drain the compressed air system where a plant will experience frequent and sizeable pressure drops. The lack of air can be eliminated when the inefficient blowoffs are replaced.

Efficient products like EXAIR's engineered Super Air Nozzles are quiet while being capable of pulling in 25 parts of room air for every one part of compressed air. Companies who want to "Go Green" and minimize compressed air use should listen for the loud compressed air noise in their plant. Once the noisy blowoff is located, EXAIR's Digital Sound Level Meter (shown on page 17) can isolate the source and measure the sound level. Replacing one drilled pipe or other homemade blowoff with one Super Air Nozzle can amount to a large air savings. Here's a typical example:

EXAIR's Digital Sound Level Meter detects the source of high noise. (See page 17)

A Steel Plant Reduces Air Use by 59%

A steel plant was using open ended pipes on their cold rolled process to blow away a dense fog of oil vapor so the operator could see the process. Each pipe consumed 195 SCFM (5,521 SLPM) of compressed air. With only a 3:1 air amplification ratio, the open ended pipe did a poor job of clearing the fog. The pipes were dangerous since they could potentially be dead ended (an OSHA violation). Even with hearing protection, workers complained that it was loud.

They installed **(2) Model 1106 1/2 NPT Stainless Steel Super Air Nozzles** with **Model 9069 Swivel Fittings** (to aim them) to blow the fog across the 6' (1.8m) width. The Super Air Nozzles completely cleared the fog and the workers complimented the significant noise drop. **Each open pipe that used to consume 195 SCFM (5,521 SLPM) was reduced to only 60 SCFM (1,699 SLPM) when the Super Air Nozzles were installed.**

Before

After

Digital Flowmeter with USB Data Logger are available. See pages 10-16 for full details.

Compressed air products should not be used at pressures higher than indicated by the manufacturer since this wastes air. When looking for places to conserve air, it is important to measure the air consumption of everything connected to the compressed air supply rather than relying on the numbers printed in a manufacturer's literature. Some manufacturers of compressed air products understate the air consumption of their products. It is hard to say if it is done intentionally or in error. One possibility is that their flow meter has not been regularly calibrated. Another reason could be a failure to properly use their flow meter.

Most flow meter manufacturers require that any measurement made on their meter be multiplied by a correction factor in order to get the exact air consumption measurement. This takes into account the conditions under which the flow meter was calibrated. If a company using one of these flow meters takes the reading but fails to multiply it by the appropriate correction factor, it would appear their product uses a lot less compressed air – easily half of what it actually consumes. **EXAIR's Digital Flowmeter models (starting on page 10) are an easy to use solution that does not require regular calibration and provides the actual reading without having to use a correction factor.**

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High Force Air Nozzles

An INTELLIGENT COMPRESSED AIR® Product

Some applications require extremely high force with extensive reach. EXAIR offers most standard nozzles in a high force version. With incredibly high blowing forces these nozzles are ideal for part ejection as well as blowoff, cooling and drying applications. EXAIR has engineered Large Super Air Nozzles that put the blowing capability of multiple nozzles into one single air nozzle. Hard-hitting force is measured in pounds, not ounces. All meet OSHA noise level and dead end pressure requirements.

High Force Air Nozzles "Quick Pick" Comparison

High Force Air Nozzles Comparison (sorted by compressed air consumption)

Model	Material	Description	Inlet	Air Consumption at 80 PSIG (5.5 BAR)		Force		Sound Level dBA	More Details
				SCFM	SLPM	Lbs	Grams		
HP1126	Zinc Aluminum alloy	1" High Power Flat Super Air Nozzle	1/8 FNPT	17.5	495	1†	454	82	p. 63
HP1126SS	Stainless Steel - Type 316	1" High Power Flat Super Air Nozzle	1/8 FNPT	17.5	495	1†	454	82	p. 63
HP1002	Brass	High Power Safety Air Nozzle	1/4 FNPT	32	906	1.8*	816	87	p. 64
HP1002SS	Stainless Steel - Type 303	High Power Safety Air Nozzle	1/4 FNPT	32	906	1.8*	816	87	p. 64
1104	ZInc Aluminum alloy	Super Air Nozzle	3/8 FNPT	35	991	1.9*	862	82	p. 64
1104SS	Stainless Steel - Type 316	Super Air Nozzle	3/8 FNPT	35	991	1.9*	862	82	p. 64
1104-PEEK	PEEK (Plastic)	Super Air Nozzle	3/8 FNPT	35	991	1.9*	862	82	p. 64
1105	ZInc Aluminum alloy	Super Air Nozzle	3/8 MNPT	35	991	1.9*	862	82	p. 64
1105SS	Stainless Steel - Type 316	Super Air Nozzle	3/8 MNPT	35	991	1.9*	862	82	p. 64
HP1125	Zinc Aluminum alloy	2" High Power Flat Super Air Nozzle	1/4 FNPT	37	1,039	2.2†	998	83	p. 64
HP1125SS	Stainless Steel - Type 316	2" High Power Flat Super Air Nozzle	1/4 FNPT	37	1,039	2.2†	998	83	p. 64
1111-4	Zinc Aluminum alloy	Super Air Nozzle Cluster	3/8 FNPT	56	1,585	3.2*	1,451	82	p. 67
1008SS	Stainless Steel - Type 316	Back Blow Air Nozzle	1 FNPT	57	1,614	NA	NA	89	p. 59
1106	Zinc Aluminum alloy	Super Air Nozzle	1/2 FNPT	60	1,699	3.3*	1,497	87	p. 65
1106SS	Stainless Steel - Type 316	Super Air Nozzle	1/2 FNPT	60	1,699	3.3*	1,497	87	p. 65
1106-PEEK	PEEK (Plastic)	Super Air Nozzle	1/2 FNPT	60	1,699	3.3*	1,497	87	p. 65
1107	Zinc Aluminum alloy	Super Air Nozzle	1/2 MNPT	60	1,699	3.3*	1,497	87	p. 65
1107SS	Stainless Steel - Type 316	Super Air Nozzle	1/2 MNPT	60	1,699	3.3*	1,497	87	p. 65
1112	Zinc Aluminum alloy	Super Air Nozzle	3/4 FNPT	91	2,577	4.5*	2,041	96	p. 65
1112SS	Stainless Steel - Type 316	Super Air Nozzle	3/4 FNPT	91	2,577	4.5*	2,041	96	p. 65
1113	Zinc Aluminum alloy	Super Air Nozzle	3/4 MNPT	91	2,577	4.5*	2,041	96	p. 65
1113SS	Stainless Steel - Type 316	Super Air Nozzle	3/4 MNPT	91	2,577	4.5*	2,041	96	p. 65
1111-7	Zinc Aluminum alloy	Super Air Nozzle Cluster	1/2 FNPT	98	2,773	5.7*	2,585	85	p. 67
1114	Zinc Aluminum alloy	Super Air Nozzle	1 FNPT	135	3,823	6.6*	2,994	99	p. 65
1114SS	Stainless Steel - Type 316	Super Air Nozzle	1 FNPT	135	3,823	6.6*	2,994	99	p. 65
1115	Zinc Aluminum alloy	Super Air Nozzle	1 MNPT	135	3,823	6.6*	2,994	99	p. 65
1115SS	Stainless Steel - Type 316	Super Air Nozzle	1 MNPT	135	3,823	6.6*	2,994	99	p. 65
1111-12	Zinc Aluminum alloy	Super Air Nozzle Cluster	1 FNPT	168	4,754	9.8*	4,445	89	p. 67
1116	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 FNPT	188	5,324	9.4*	4,264	102	p. 66
1117	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 MNPT	188	5,324	9.4*	4,264	102	p. 66
1118	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 FNPT	300	8,495	15*	6,804	106	p. 66
1119	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 MNPT	300	8,495	15*	6,804	106	p. 66
1120	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 FNPT	460	13,026	23*	10,433	109	p. 66
1121	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 MNPT	460	13,026	23*	10,433	109	p. 66

For Air Nozzles with lower force, see page 54.

* Force measured at 12" (305mm) from target. All sound levels measured at 3 feet (914mm). All measurements taken at 80 PSIG (5.5 BAR).

† Force measured at 12" (305mm) from target with a .025" (0.64mm) shim installed.

FNPT = NPT Female
MNPT = NPT Male

1" High Power Flat Super Air Nozzles™

Model HP1126 1/8 NPT female
Material: Zinc Aluminum alloy
Model HP1126SS 1/8 NPT female
Material: Type 316 Stainless Steel

A 1" High Power Flat Super Air Nozzle is used to tip a part from a chute and on to a conveyor.

Model HP1126 and HP1126SS
1" High Power Flat Super Air Nozzles

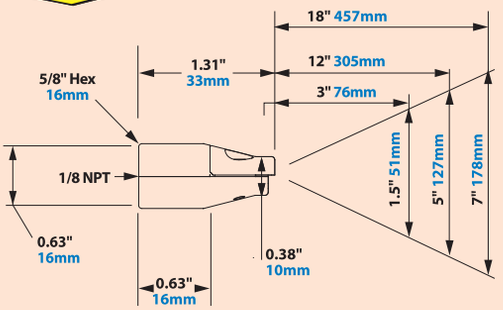
EXAIR's 1" High Power Flat Super Air Nozzles produce a flat 1" (25mm) wide airstream with a blowing force of 1 pound. The unique design of this super-efficient nozzle makes it an ideal fit for both tight spaces and tight budgets. It uses EXAIR's patented technology to maximize entrained airflow while reducing noise levels.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
17.5	495	1	454	82

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).
.025" (0.64mm) shim installed.

Dimensions and Airflow Pattern

DOWNLOAD drawings at EXAIR.com



The Model HP1136SS Shim Set for the 1" High Power Flat Super Air Nozzle includes a .020" (0.51mm) and .030" (0.76mm) thick shim. A .025" (0.64mm) shim is installed.

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High Force Air Nozzles

High Power Safety Air Nozzles™

Model HP1002 1/4 NPT female
Material: Brass
Model HP1002SS 1/4 NPT female
Material: Type 303 Stainless Steel

Model HP1002 and HP1002SS High Power Safety Air Nozzles

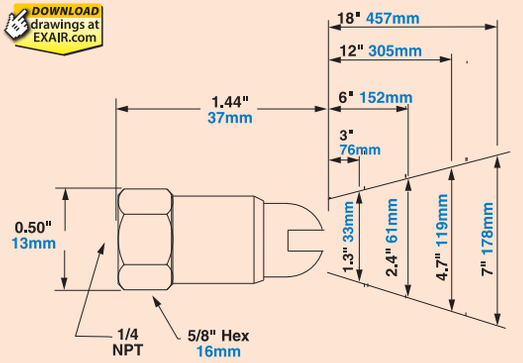
Provide strong blowing force for applications requiring high thrust and velocity. It uses more compressed air than other air nozzles but is low when compared to typical blow-offs delivering the same force.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
32	906	1.8	816	87

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Dimensions and Airflow Pattern

DOWNLOAD drawings at EXAIR.com



2" High Power Flat Super Air Nozzles™

Model HP1125 1/4 NPT female
Material: Zinc Aluminum alloy
Model HP1125SS 1/4 NPT female
Material: Type 316 Stainless Steel

Model HP1125 and HP1125SS 2" High Power Flat Super Air Nozzles

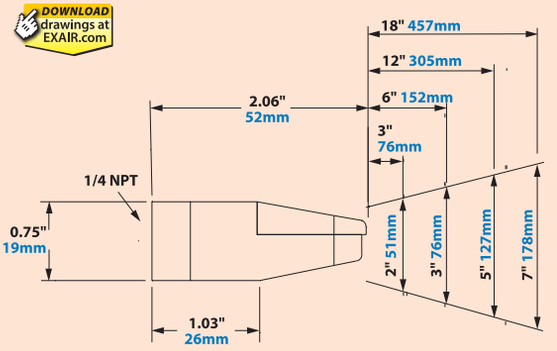
EXAIR's 2" High Power Flat Super Air Nozzles produce a flat 2" (51mm) wide air-stream with a strong blowing force of 2.2 pounds (998 grams). The adjustable force is more than three times that of ordinary air nozzles. It uses EXAIR's patented† technology to maximize entrained airflow while reducing noise levels.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
37	1,039	2.2	998	83

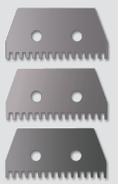
* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).
.025" (0.64mm) shim installed.
† Patent #5402938

Dimensions and Airflow Pattern

DOWNLOAD drawings at EXAIR.com



Note: For highest force and flow, order Model 900633 .030" (0.76mm) shim.



The Model HP1132SS Shim Set for the 2" High Power Flat Super Air Nozzle includes a .020" (0.51mm) and .030" (0.76mm) thick shim. A .025" (0.64mm) shim is installed.

Large Super Air Nozzles™

Model 1104 3/8 NPT female
Material: Zinc Aluminum alloy
Model 1104SS 3/8 NPT female
Material: Type 316 Stainless Steel
Model 1104-PEEK 3/8 NPT female
Material: PEEK (plastic)

Model 1105 3/8 NPT male
Material: Zinc Aluminum alloy
Model 1105SS 3/8 NPT male
Material: Type 316 Stainless Steel

Model 1104, 1104SS, 1104-PEEK, 1105 and 1105SS 3/8 NPT Super Air Nozzles

EXAIR's 3/8 NPT Super Air Nozzles produce 1.9 lbs (862 grams) of strong blowing force that is 2.3 times that of the standard Super Air Nozzle. The protective aerodynamic slots guide the airflow to a single point of convergence for hard-hitting force and dramatic noise reduction over typical blowoffs.

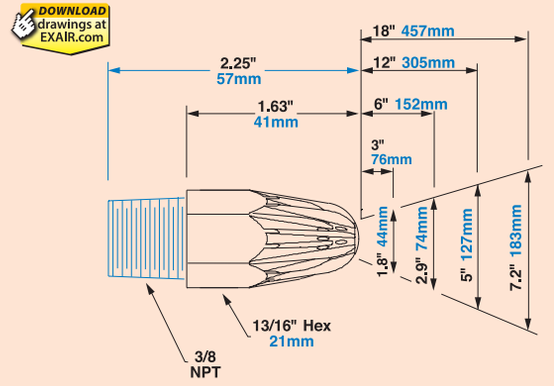
Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
35	991	1.9	862	82

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Plant Engineering PRODUCT of the YEAR Finalist 2014

Dimensions and Airflow Pattern

DOWNLOAD drawings at EXAIR.com



High Force Air Nozzles

An INTELLIGENT COMPRESSED AIR® Product

Large Super Air Nozzles™

Model 1106 1/2 NPT female
Material: Zinc Aluminum alloy
Model 1106SS 1/2 NPT female
Material: Type 316 Stainless Steel
Model 1106-PEEK 1/2 NPT female
Material: PEEK (Plastic)

Model 1107 1/2 NPT male
Material: Zinc Aluminum alloy
Model 1107SS 1/2 NPT male
Material: Type 316 Stainless Steel

Model 1106, 1106-PEEK, 1106SS, 1107 and 1107SS 1/2 NPT Super Air Nozzles

EXAIR's 1/2 NPT Super Air Nozzles produce 3.3 lbs (1.5 kg) of blowing force – 4 times that of ordinary nozzles. Air consumption and noise are extremely low compared to that of open pipe or copper tubes.

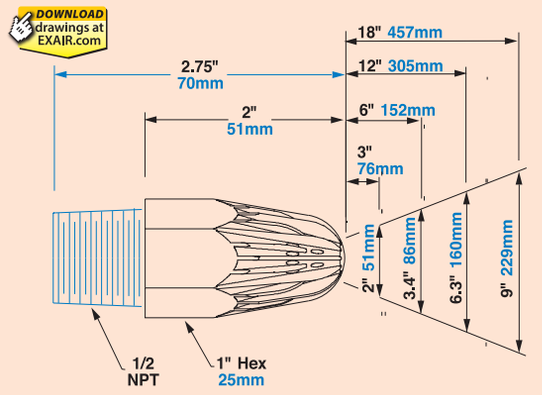
Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Kg	dBA
60	1,699	3.3	1.5	87

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Plant Engineering PRODUCT of the YEAR Finalist 2005

2024 WINNER OHS INDUSTRIAL HYGIENE AWARDS

Dimensions and Airflow Pattern



Model 1112 3/4 NPT female
Material: Zinc Aluminum alloy
Model 1112SS 3/4 NPT female
Material: Type 316 Stainless Steel

Model 1113 3/4 NPT male
Material: Zinc Aluminum alloy
Model 1113SS 3/4 NPT male
Material: Type 316 Stainless Steel

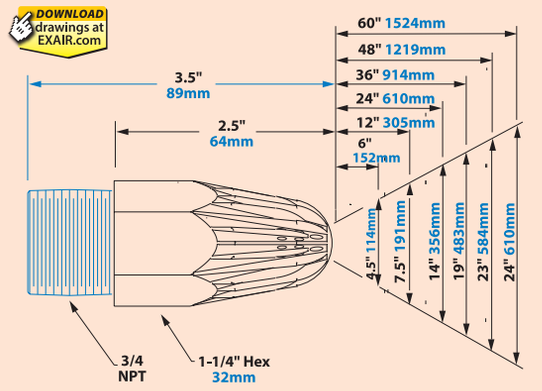
Model 1112, 1112SS, 1113 and 1113SS 3/4 NPT Super Air Nozzles

EXAIR's Super Air Nozzles are available in larger sizes where extreme force is required. The 3/4 NPT Super Air Nozzles produce 4.5 lbs (2.04 kg) of blowing force – over 5 times that of ordinary nozzles.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Kg	dBA
91	2,577	4.5	2.04	96

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).
OSHA allows 3 hours of exposure per day without hearing protection.

Dimensions and Airflow Pattern



Model 1114 1 NPT female
Material: Zinc Aluminum alloy
Model 1114SS 1 NPT female
Material: Type 316 Stainless Steel

Model 1115 1 NPT male
Material: Zinc Aluminum alloy
Model 1115SS 1 NPT male
Material: Type 316 Stainless Steel

Model 1114, 1114SS, 1115 and 1115SS 1 NPT Super Air Nozzles

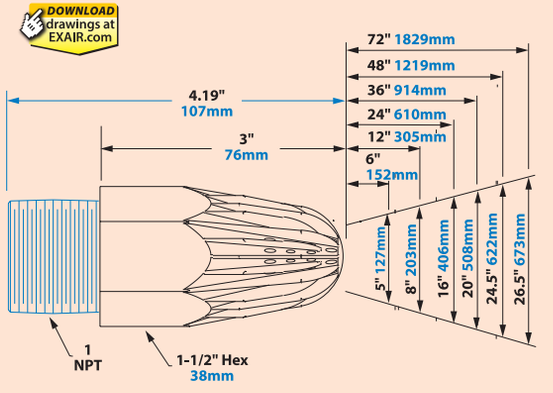
EXAIR's 1 NPT Super Air Nozzles optimize entrained airflow across the nozzle surface to minimize the noise level while providing extremely strong blowing force. They produce 6.6 lbs (3.01 kg) of blowing force – over 8 times that of ordinary nozzles.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Kg	dBA
135	3,823	6.6	2.99	99

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR)
OSHA allows 2 hours of exposure per day without hearing protection.

2012 Plant Engineering PRODUCT of the YEAR Bronze Award

Dimensions and Airflow Pattern



High Force Air Nozzles

An INTELLIGENT COMPRESSED AIR® Product

Large Super Air Nozzles™

Model 1116 1-1/4 NPT female
Material: Zinc Aluminum alloy

Model 1117 1-1/4 NPT male
Material: Zinc Aluminum alloy

Model 1116 and 1117
1-1/4 NPT Super Air Nozzles

EXAIR's 1-1/4 NPT Super Air Nozzles provide exceptionally strong blowing force. They produce 9.4 lbs (4.25 kg) of blowing force – almost 12 times that of the standard Super Air Nozzle.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Kg	dBA
188	5,324	9.4	4.26	102

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).
OSHA allows 1 hour of exposure per day without hearing protection.

2008 Plant Engineering PRODUCT of the YEAR WINNER

Dimensions and Airflow Pattern

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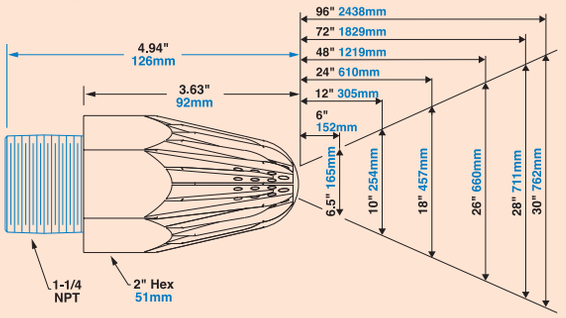


Model 1118 1-1/4 NPT female
Material: Zinc Aluminum alloy

Model 1119 1-1/4 NPT male
Material: Zinc Aluminum alloy

Model 1118 and 1119
1-1/4 NPT Super Air Nozzles

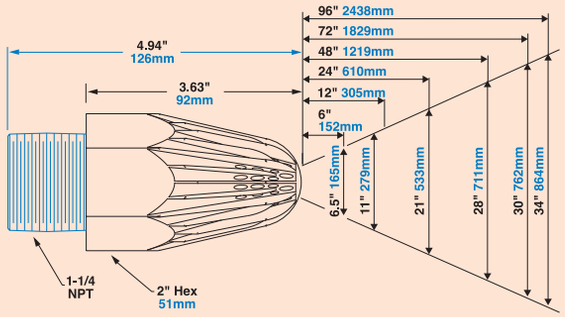
These 1-1/4 NPT Super Air Nozzles have larger orifices than the Model 1116 / 1117 that provide additional air velocity. They generate 15 lbs (6.80 kg) of blowing force – almost 18 times that of the standard Super Air Nozzle.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Kg	dBA
300	8,495	15	6.80	106

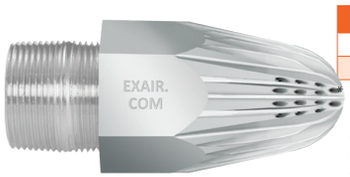
* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).
OSHA allows 1/2 hour of exposure per day without hearing protection.

Dimensions and Airflow Pattern

DOWNLOAD drawings at EXAIR.com



Model 1120 1-1/4 NPT female
Material: Zinc Aluminum alloy



Model 1121 1-1/4 NPT male
Material: Zinc Aluminum alloy

Model 1120 and 1121
1-1/4 NPT Super Air Nozzles

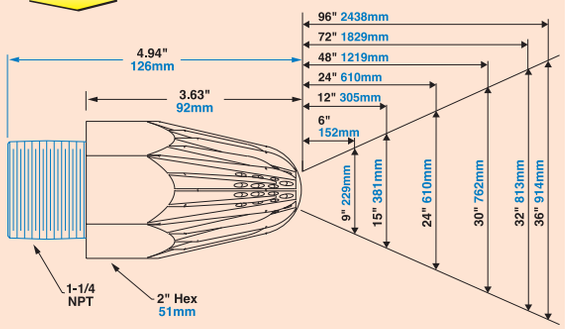
These 1-1/4 NPT Super Air Nozzles have the largest orifices that provide additional air velocity, and generate the strongest blowing force of any single air nozzle. They produce 23 lbs (10.43 kg) of blowing force – almost 28 times that of the standard Super Air Nozzle.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Kg	dBA
460	13,026	23	10.43	109

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).
OSHA allows 1/2 hour of exposure per day without hearing protection.

Dimensions and Airflow Pattern

DOWNLOAD drawings at EXAIR.com



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Super Air Nozzle Clusters

An INTELLIGENT COMPRESSED AIR® Product

Super Air Nozzle Clusters

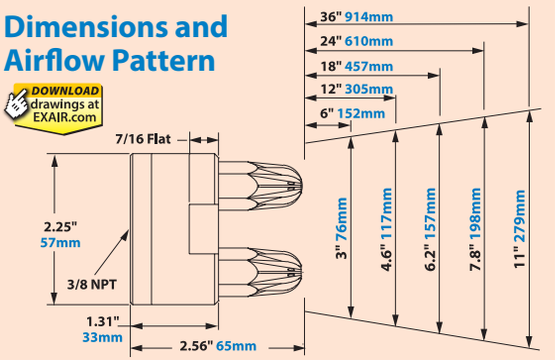
Model 1111-4 Super Air Nozzle Cluster

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Kg	dBA
56	1,585	3.2	1.45	82

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Model 1111-4 3/8 NPT female
Material: Nozzles - Zinc Aluminum alloy
Body - Aluminum

Dimensions and Airflow Pattern



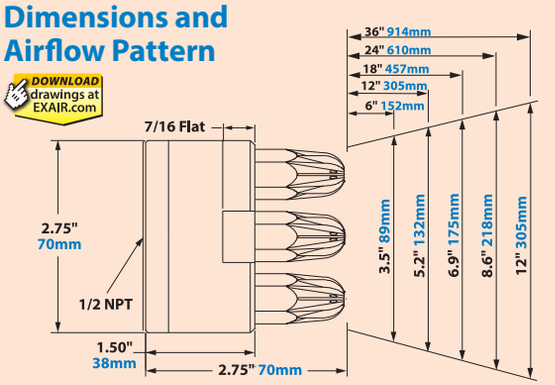
Model 1111-7 Super Air Nozzle Cluster

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Kg	dBA
98	2,773	5.7	2.59	85

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Model 1111-7 1/2 NPT female
Material: Nozzles - Zinc Aluminum alloy
Body - Aluminum

Dimensions and Airflow Pattern



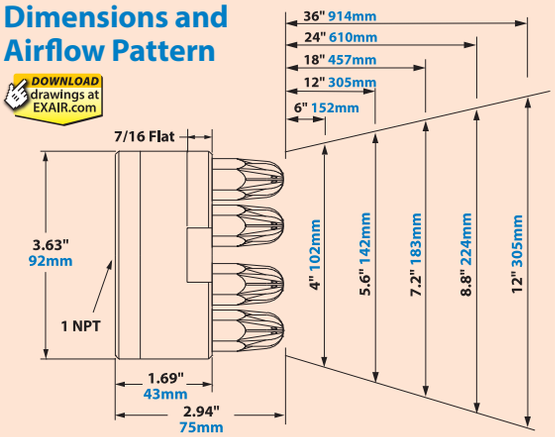
Model 1111-12 Super Air Nozzle Cluster

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Kg	dBA
168	4,754	9.8	4.45	89

* Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm).
All measurements taken at 80 PSIG (5.5 BAR).

Model 1111-12 1 NPT female
Material: Nozzles - Zinc Aluminum alloy
Body - Aluminum

Dimensions and Airflow Pattern



Flexible Stay Set Hoses™

Adding Flexibility

For applications where frequent repositioning of the standard force Air Nozzles or Jets is required, the Flexible Stay Set Hoses™ are ideal. Simply mount the hose in close proximity to the application and bend it to aim the airstream at the target. Since the hose has "memory", it will not creep or bend. It always keeps the aim until physically moved to the next position.

Two versions of the Stay Set Hoses are available in a variety of lengths. The 1/4 MNPT × 1/4 MNPT hose has a 1/4 NPT male fitting on each end and the 1/4 MNPT × 1/8 FNPT hose has a 1/4 NPT male fitting on one end and 1/8 NPT female fitting on the other.

Flexible Stay Set Hoses bend and keep their aim until physically moved.

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Nozzle Accessories

Flexible Stay Set Hoses™ continued

The Air Nozzles shown below can be used with the following Stay Set Hoses (1/4 NPT male fitting on each end):

Model #	Description	Model #	Description
9206	6" (152mm) 1/4 MNPT x 1/4 MNPT	9224	24" (610mm) 1/4 MNPT x 1/4 MNPT
9212	12" (305mm) 1/4 MNPT x 1/4 MNPT	9230	30" (762mm) 1/4 MNPT x 1/4 MNPT
9218	18" (457mm) 1/4 MNPT x 1/4 MNPT	9236	36" (914mm) 1/4 MNPT x 1/4 MNPT

Model 1002
Safety Air Nozzle

Model 1002SS
SS Safety Air Nozzle

Model HP1002
High Power Safety Air Nozzle

Model HP1002SS
SS High Power Safety Air Nozzle

Model 1122
2" (51mm) Flat Super Air Nozzle

Model 1122SS
2" (51mm) SS Flat Super Air Nozzle

Model HP1125
2" (51mm) High Power Flat Super Air Nozzle

Model HP1125SS
2" (51mm) SS High Power Flat Super Air Nozzle

Model 1100
Super Air Nozzle

Model 1100SS
SS Super Air Nozzle

Model 1100-PEEK
PEEK Super Air Nozzle

Model 1006SS
SS Back Blow Air Nozzle

The Air Nozzles and Jets shown below can be used with the following Stay Set Hoses (1/4 NPT male fitting on one end, 1/8 NPT female on the other):

Model #	Description	Model #	Description
9256	6" (152mm) 1/4 MNPT x 1/8 FNPT	9274	24" (610mm) 1/4 MNPT x 1/8 FNPT
9262	12" (305mm) 1/4 MNPT x 1/8 FNPT	9280	30" (762mm) 1/4 MNPT x 1/8 FNPT
9268	18" (457mm) 1/4 MNPT x 1/8 FNPT	9286	36" (914mm) 1/4 MNPT x 1/8 FNPT

Model 1108SS-NPT
Atto Super Air Nozzle

Model 1108-PEEK-NPT
Atto PEEK Super Air Nozzle

Model 1109SS-NPT
Pico Super Air Nozzle

Model 1109-PEEK-NPT
Pico PEEK Super Air Nozzle

Model 1110SS-NPT
Nano Super Air Nozzle

Model 1110-PEEK-NPT
Nano PEEK Super Air Nozzle

Model 1010SS
SS Micro Air Nozzle

Model 1126 1" (25mm)
Flat Super Air Nozzle

Model 1126SS 1" (25mm)
SS Flat Super Air Nozzle

Model HP1126 1" (25mm)
High Power Flat Super Air Nozzle

Model HP1126SS 1" (25mm)
SS High Power Flat Super Air Nozzle

Model 1103
Mini Super Air Nozzle

Model 1103SS
SS Mini Super Air Nozzle

Model 1009
Adjustable Air Nozzle

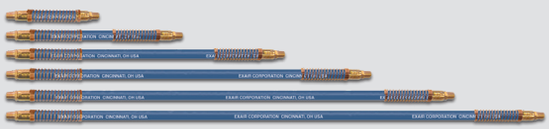
Model 1009SS
SS Adjustable Air Nozzle

Model 6013
High Velocity Air Jet

Model 6013SS
SS High Velocity Air Jet

Model 6019
Adjustable Air Jet

Model 6019SS
SS Adjustable Air Jet



Flexible Stay Set Hoses bend to fit your application and will maintain their orientation until the position needs to be re-adjusted. The airstream can be aimed at precisely the correct spot.

Swivel Fittings

Swivel Fittings can be added to most EXAIR Nozzles by adding a "W" to the Model#.

Example:
1122 (2" Flat Super Air Nozzle)
+ W (Swivel Fitting)
1122W

EXAIR's Swivel Fittings make it easy to adjust the aim of the Air Nozzles and Jets. Correct placement of the blowing angle can help optimize performance, reduce noise levels and improve efficiency. Swivel Fittings permit a movement of 25 degrees from the center axis for a total movement of 50 degrees. Type 303 or 316 Stainless Steel.

Swivel Fittings

Model #	Description
9201	M4 x 0.5mm female x 1/8 MNPT, 316SS
9202	M5 x 0.5mm female x 1/8 MNPT, 316SS
9203	M6 x 0.75mm female x 1/8 MNPT, 316SS
9052	1/8 MNPT x 1/8 FNPT, 303SS
9053	1/4 MNPT x 1/4 FNPT, 303SS
9068	3/8 MNPT x 3/8 FNPT, 303SS
9069	1/2 MNPT x 1/2 FNPT, 303SS
9023	3/4 MNPT x 3/4 FNPT, 303SS
9204	1 MNPT x 1 FNPT, 303SS

Magnetic Bases

Magnetic bases are suited to applications where frequent movement of the Air Nozzle or Jet is required. The powerful magnet permits horizontal or vertical mounting that will hold the blowing position of the Stay Set Hose. A shutoff valve is provided that can be used to vary the force and flow.

Model #	Description
9042	One Outlet Magnetic Base
9043	Two Outlet Magnetic Base

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FLUIDAL, S.L. Pº Ubarburu,79 Pab.4 L.6 20.115 Astigarraga (Gipuzkoa) www.fluidal.com - fluidal@fluidal.com

An INTELLIGENT COMPRESSED AIR® Product

Build Your Own System

Now you can put together the best combination that suits your blowoff, cooling, drying or cleaning application. Select the model number that includes your choice of Air Nozzle or Jet, a length of Stay Set Hose, and a one or two outlet magnetic base. Here's how:

1. Choose the Air Nozzle or Jet model. **Example:** Model 1122 Super Air Nozzle
2. You have the option to include a length of Stay Set Hose. Simply list the model of the Stay Set Hose (shown on previous page) as a dash number after the Air Nozzle or Jet model number.
   Example: A Model 1122 Super Air Nozzle with a Model 9212 12" (305mm) Stay Set Hose is a Model 1122-**9212.**
3. You have the option to include a magnetic base. If you want a One Outlet Magnetic Base, change the second digit of the "added on" dash number to a **"3"**. If you would like the Two Outlet Magnetic Base, change the second digit to a **"4"**. By using a **"4"**, you will receive (2) Air Nozzles or Jets and (2) Stay Set Hoses to attach to the Two Outlet Magnetic Base.
   Example: Two Model 1122 Super Air Nozzles with two 12" (305mm) Stay Set Hoses and Two Outlet Magnetic Base is a Model 1122-9**4**12.

A Model 1122-9412 includes two Model 1122 Super Air Nozzles with two 12" (305mm) Stay Set Hose and Two Outlet Magnetic Base.

Blowoff Kits

Model # 1100-9312

Blowoff Kit includes:

(1) 1100 Super Air Nozzle
(1) 9212 12" (305mm) Stay Set Hose
(1) 9042 Magnetic Base

Model # 1100-9412

Blowoff Kit includes:

(2) 1100 Super Air Nozzles
(2) 9212 12" (305mm) Stay Set Hose
(1) 9043 Magnetic Base

Model # 1103-9362

Blowoff Kit includes:

(1) 1103 Mini Super Air Nozzle
(1) 9262 12" (305mm) Stay Set Hose
(1) 9042 Magnetic Base

Model # 1103-9462

Blowoff Kit includes

(2) 1103 Mini Super Air Nozzles
(2) 9262 12" (305mm) Stay Set Hose
(1) 9043 Magnetic Base

Model # 1122-9312

Blowoff Kit includes

(1) 1122 2" Flat Super Air Nozzle
(1) 9212 12" (305mm) Stay Set Hose
(1) 9042 Magnetic Base

Model # 1122-9412

Blowoff Kit includes

(2) 1122 2" Flat Super Air Nozzles
(2) 9212 12" (305mm) Stay Set Hose
(1) 9043 Magnetic Base

Model # 1909

Blowoff Kit includes

(1) 1102 Mini Super Air Nozzle
(1) 1009 Adjustable Air Nozzle
(1) 1100 1/4 NPT Super Air Nozzle
(1) 1104 3/8 NPT Super Air Nozzle
(1) 1106 1/2 NPT Super Air Nozzle
(1) 1122 2" Flat Super Air Nozzle
(1) 6013 High Velocity Air Jet
(1) 6019 Adjustable Air Jet

Model # 1909SS

Stainless Steel Blowoff Kit includes

(1) 1102SS 1/8 NPT Mini Super Air Nozzle
(1) 1009SS Adjustable Air Nozzle
(1) 1100SS 1/4 NPT Super Air Nozzle
(1) 1104SS 3/8 NPT Super Air Nozzle
(1) 1106SS 1/2 NPT Super Air Nozzle
(1) 1010SS 1/8 NPT Micro Air Nozzle
(1) 1122SS 2" Flat Super Air Nozzle

EXAIR nozzles wih flexible stayset hoses blow dry air onto a manufacturing part.

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