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 the award winning Super Air Nozzles!



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!

Built to Last 5 yr. WARRANTY

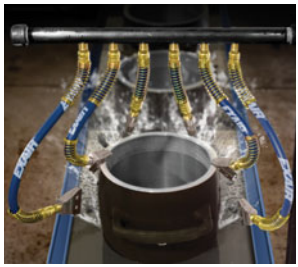
See page 2 for complete details.



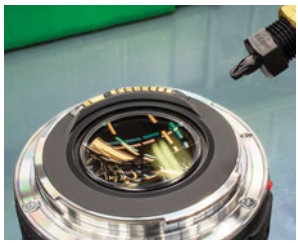
Why Air Nozzles and Jets?

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 ended 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 standard cubic feet per minute (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.



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 blow off application on a sensitive lens.

Applications

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

Advantages

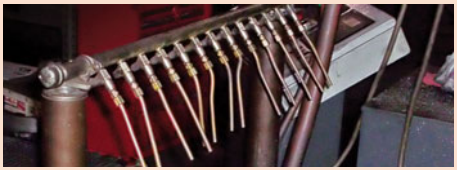
- Reduced compressed air cost
- 10 dBA average noise reduction
- Conserve compressed air
- Improved blowoff performance
- Compact
- Improved safety
- Meets OSHA noise level requirements
- Meets OSHA pressure requirements
- Improved production

Air Nozzles and Jets

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 ended 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 instantaneous response. EXAIR's EFC (shown on page 4) 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 Ended 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 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 a 1/8" (3.2mm) open pipe. The compressed air savings is easy to calculate and proves 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.

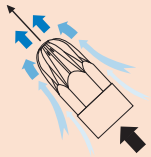
Example:

1. Existing blowoff is 1/8" (3.2mm) 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 45, 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 x .2 = 12 SCFM (1,698 x .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 x 60 minutes x cost/1,000 SCF (SLPM saved x 60 min x cost/10,000 SL) = 60 x 60 x $0.25/1,000 (= 1,698 x 60 x $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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How Air Nozzles Work

Air Nozzles use the coanda effect to amplify compressed airflow up to 25 times or more. As illustrated on the right, 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 ended 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 (10,433 grams) 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*	56.7	58	p. 46
1108-PEEK	PEEK (Plastic)	Atto Super Air Nozzle	M4 x 0.5	2.5	71	2.0*	56.7	58	p. 46
1108SS-NPT	Stainless Steel - Type 316	Atto Super Air Nozzle	1/8 MNPT	2.5	71	2.0*	56.7	58	p. 46
1108-PEEK-NPT	PEEK (Plastic)	Atto Super Air Nozzle	1/8 MNPT	2.5	71	2.0*	56.7	58	p. 46
1109SS	Stainless Steel - Type 316	Pico Super Air Nozzle	M5 x 0.5	4.9	139	5.0*	141.7	68	p. 46
1109-PEEK	PEEK (Plastic)	Pico Super Air Nozzle	M5 x 0.5	4.9	139	5.0*	141.7	68	p. 46
1109SS-NPT	Stainless Steel - Type 316	Pico Super Air Nozzle	1/8 MNPT	4.9	139	5.0*	141.7	68	p. 46
1109-PEEK-NPT	PEEK (Plastic)	Pico Super Air Nozzle	1/8 MNPT	4.9	139	5.0*	141.7	68	p. 46
1110SS	Stainless Steel - Type 316	Nano Super Air Nozzle	M6 x 0.75	8.3	235	8.1*	230	75	p. 46
1110-PEEK	PEEK (Plastic)	Nano Super Air Nozzle	M6 x 0.75	8.3	235	8.1*	230	75	p. 46
1110SS-NPT	Stainless Steel - Type 316	Nano Super Air Nozzle	1/8 MNPT	8.3	235	8.1*	230	75	p. 46
1110-PEEK-NPT	PEEK (Plastic)	Nano Super Air Nozzle	1/8 MNPT	8.3	235	8.1*	230	75	p. 46
1001	Brass	Safety Air Nozzle	1/8 FNPT	10	283	9*	255	78	p. 48
1102	Zinc Aluminum alloy	Mini Super Air Nozzle	1/8 FNPT	10	283	9*	255	71	p. 47
1102-PEEK	PEEK (Plastic)	Mini Super Air Nozzle	1/8 FNPT	10	283	9*	255	71	p. 47
1102SS	Stainless Steel - Type 316	Mini Super Air Nozzle	1/8 FNPT	10	283	9*	255	71	p. 47
1103	Zinc Aluminum alloy	Mini Super Air Nozzle	1/8 MNPT	10	283	9*	255	71	p. 47
1103SS	Stainless Steel - Type 316	Mini Super Air Nozzle	1/8 MNPT	10	283	9*	255	71	p. 47
1126	Zinc Aluminum alloy	1" Flat Super Air Nozzle	1/8 FNPT	10.5	297	9.8†	278	75	p. 49
1126SS	Stainless Steel - Type 316	1" Flat Super Air Nozzle	1/8 FNPT	10.5	297	9.8†	278	75	p. 49
1010SS	Stainless Steel - Type 303	Micro Air Nozzle	1/8 MNPT	13	368	12*	340	80	p. 46
1009	Aluminum	Adjustable Air Nozzle	1/8 MNPT	13	368	12**	340	79	p. 48
1009SS	Stainless Steel - Type 303	Adjustable Air Nozzle	1/8 MNPT	13	368	12**	340	79	p. 48
1100	Zinc Aluminum alloy	Super Air Nozzle	1/4 FNPT	14	396	13*	368	74	p. 47
1100-PEEK	PEEK (Plastic)	Super Air Nozzle	1/4 FNPT	14	396	13*	368	74	p. 47
1100SS	Stainless Steel - Type 316	Super Air Nozzle	1/4 FNPT	14	396	13*	368	74	p. 47
1101	Zinc Aluminum alloy	Super Air Nozzle	1/4 MNPT	14	396	13*	368	74	p. 47
1101SS	Stainless Steel - Type 316	Super Air Nozzle	1/4 MNPT	14	396	13*	368	74	p. 47
1002	Brass	Safety Air Nozzle	1/4 FNPT	17	481	16*	453	80	p. 48
1002SS	Stainless Steel - Type 303	Safety Air Nozzle	1/4 FNPT	17	481	16*	453	80	p. 48
1003	Brass	Safety Air Nozzle	3/8 FNPT	18	509	18*	510	83	p. 48
6019	Brass	Adjustable Air Jet	1/8 MNPT	18	509	16***	453	83	p. 50
6013	Brass	High Velocity Air Jet	1/8 MNPT	22	622	20†	567	82	p. 50
1122	Zinc Aluminum alloy	2" Flat Super Air Nozzle	1/4 FNPT	22	622	22†	624	77	p. 49
1122SS	Stainless Steel - Type 316	2" Flat Super Air Nozzle	1/4 FNPT	22	622	22†	624	77	p. 49

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

Air Nozzles

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 forceful, 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	56.7	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™



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™



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

Model 1010SS Micro Air Nozzle

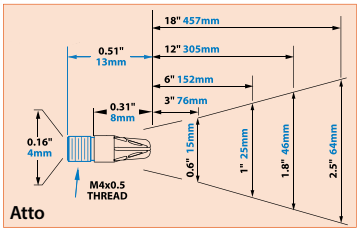
EXAIR's Micro Air Nozzle optimizes entrainment for a directed, high volume, high velocity airflow. The compact size permits mounting where space is limited. Sound level and air consumption are low.

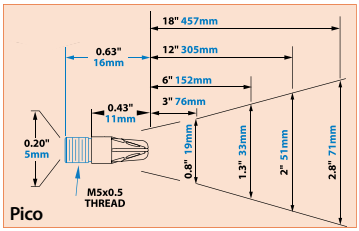
Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
13	368	12	340	80

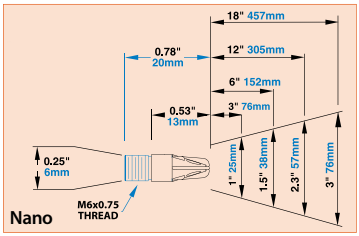
*Force measured at 12" (305mm) from target.
Sound level measured at 3' (914mm)
All measurements taken at 80 PSIG (5.5 BAR)

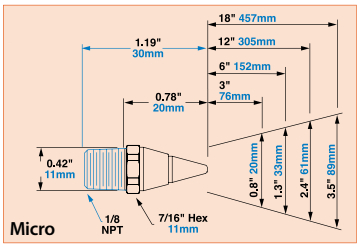
The Air Nozzles and Jets shown on pages 46 – 50 deliver up to 22 ounces (624 grams) of force, making them suitable for most blowoff, drying and cooling applications. All models shown use a small amount of compressed air to entrain large volumes of surrounding room air. The award winning Super Air Nozzles 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

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

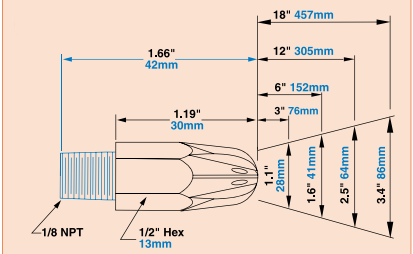
The 1/8 NPT Mini Super Air Nozzles provide a forceful, concentrated stream of high velocity airflow. It has fewer holes than the larger Super Air Nozzles, resulting in lower sound levels, air consumption and force.

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)



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)



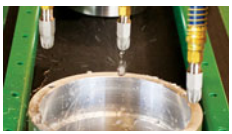
Model 1101 1/4 NPT male
Material: Zinc Aluminum alloy
Model 1101SS 1/4 NPT male
Material: Type 316 Stainless Steel

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 can not be blocked or dead ended.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
14	396	13	368	74

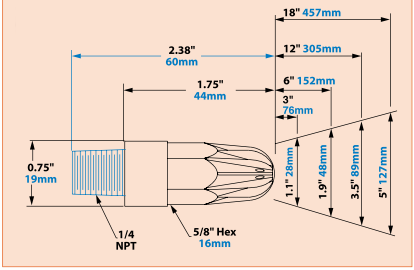
* Force measured at 12" (305mm) from target
Sound level measured at 3' (914mm)
All measurements taken at 80 PSIG (5.5 BAR)



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



Dimensions and Airflow Pattern





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 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 58 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

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

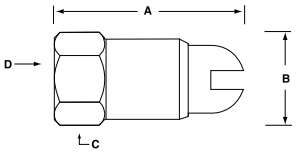
Model 1003 3/8 NPT female
Material: Brass

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.

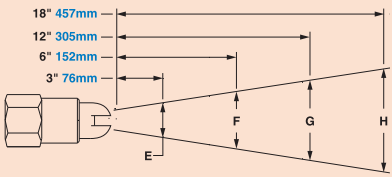
Air Consumption		Force*		Sound Level
Model	SCFM	SLPM	Ozs	Grams	dBA
1001	10	283	9	255	78
1002	17	481	16	453	80
1002SS	17	481	16	453	80
1003	18	509	18	510	83

* 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



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

Adjustable Air Nozzles



Model 1009 1/8 NPT male
Material: Aluminum

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

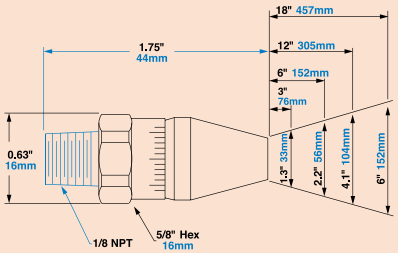
Model 1009 and 1009SS Adjustable Air Nozzles

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 measured at 3' (914mm)
All measurements taken at 80 PSIG (5.5 BAR)

Dimensions and Airflow Pattern



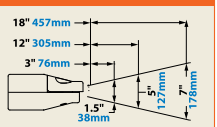
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An INTELLIGENT COMPRESSED AIR® Product

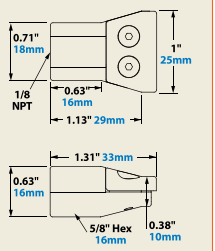
Flat Super Air Nozzles™



1" Flat Super Air Nozzle
Airflow Pattern



Dimensions

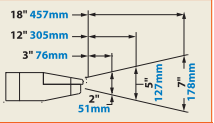


Model 1126 1/8 NPT female
Material: Zinc Aluminum alloy

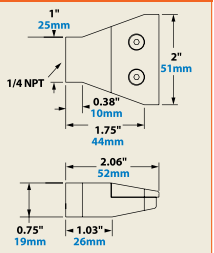
Model 1126SS 1/8 NPT female
Material: Type 316 Stainless Steel



2" Flat Super Air Nozzle
Airflow Pattern



Dimensions



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

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

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
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.

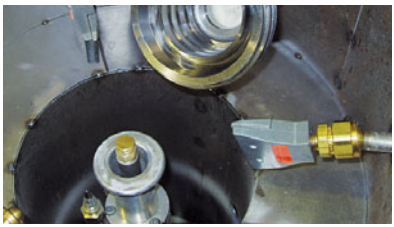
The 1" and 2" Flat Super Air Nozzles are shipped with a .015" (0.38mm) air gap opening that is set with a stainless steel shim positioned between the cap and the body. Force and flow may be easily increased or decreased by installing a different shim.

Shim sets for the 1" and 2" 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
1132SS Stainless Steel 2" Flat Super Air Nozzle Shim Set



A stainless steel 1" Flat Super Air Nozzle removes condensate water from a label prior to scanning.



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

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



Flat air nozzles by other manufacturers use a series of holes and consume enormous amounts of compressed air. Many break off, are loud and can get you an OSHA fine due to dangerous dead end pressures. Theirs aren't adjustable, making it likely you'll waste compressed air. Replacing one of theirs with the EXAIR 2" Flat Super Air Nozzle can save over $1,200 per year.

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, $0.25 is a reasonable average to use.

SCFM saved x 60 minutes x cost/1,000 SCF = dollars saved per hour.

- In this case, 9.2 SCFM x 60 x $0.25/1,000 SCF = **13.8 cents per hour.**
- 13.8 cents per hour x 24 hours = **$3.31 per day.**
- $3.31 per day x 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
2" Flat Super Air Nozzle	*7.3 - 30 SCFM	62-81	0.5 – 1.9

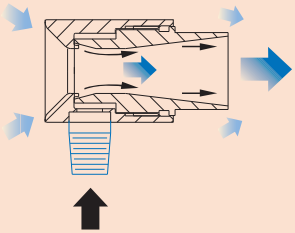
*Air consumption dependent upon shim size.

EXAIR's 2" Flat Super Air Nozzle can pay for itself in less than 18 days.

Air Jets

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 ended pressure requirements.**



High Velocity Air Jet



Model 6013 1/8 NPT male
Material: Brass



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 Air Jet.

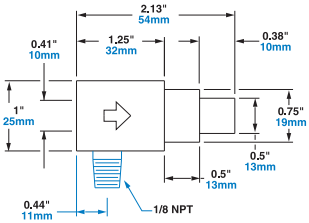
Model 6013 High Velocity Air Jet

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

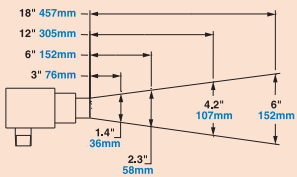
Shim Sets: Shims can be used to change the gap on the Model 6013 High Velocity Air Jet. Changing shims will alter air consumption, force, flow and vacuum capability. Order Model 6313 Air Jet Shim Set.

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)



Airflow Pattern



Adjustable Air Jet



Model 6019 1/8 NPT male
Material: Brass



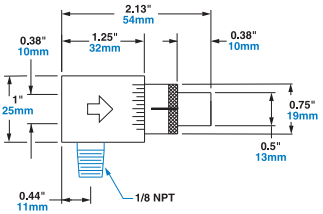
A combination of Model 6013 High Velocity Air Jets and Model 6042 Adjustable Air Amplifiers dry this engine casting.

Model 6019 Adjustable Air Jet

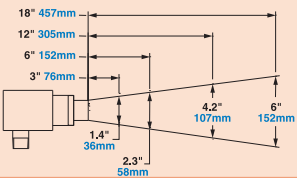
This is an adjustable version of the Model 6013 High Velocity Air Jet. Airflow and thrust are easily adjusted using the micrometer gap indicator.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
18	509	16	453	83

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



Airflow Pattern



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EXAIR's Digital Sound Level Meter detects the source of high noise. (See page 6)

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 using one part compressed air. Companies who want to "Go Green" and minimize compressed air use should listen for the loud compressed air noise in their pla…. Once the noisy blowoff is located, EXAIR's Digital Sound Level Meter (shown on page 6) 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:

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 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) that blew 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 was reduced to only 60 SCFM when the Super Air Nozzles were installed.**

Before



After





Digital Flowmeter with USB Data Logger included. See page 9 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 simply 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 what it actually consumes. **EXAIR's Digital Flowmeter is an easy to use meter that does not require regular calibration and provides the actual reading without having to use a correction factor.**

High Force Air Nozzles

Some applications require extremely high force with extensive reach. EXAIR's High Power Safety Air Nozzles, 1" and 2" High Power Flat Super Air Nozzles, Large Super Air Nozzles and Super Air Nozzle Clusters provide incredibly strong blowing force. They 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 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	More Details
				SCFM	SLPM	Lbs	Grams	dBA	
HP1126	Zinc Aluminum alloy	1" High Power Flat Super Air Nozzle	1/8 FNPT	17.5	495	1†	462	82	p. 52
HP1126SS	Stainless Steel - Type 316	1" High Power Flat Super Air Nozzle	1/8 FNPT	17.5	495	1†	462	82	p. 52
HP1002	Brass	High Power Safety Air Nozzle	1/4 FNPT	32	906	1.8*	792	87	p. 53
HP1002SS	Stainless Steel - Type 303	High Power Safety Air Nozzle	1/4 FNPT	32	906	1.8*	792	87	p. 53
1104	Zinc Aluminum alloy	Super Air Nozzle	3/8 FNPT	35	991	1.9*	850	82	p. 53
1104SS	Stainless Steel - Type 316	Super Air Nozzle	3/8 FNPT	35	991	1.9*	850	82	p. 53
NEW 1104-PEEK	PEEK (Plastic)	Super Air Nozzle	3/8 FNPT	35	991	1.9*	850	82	p. 53
1105	Zinc Aluminum alloy	Super Air Nozzle	3/8 MNPT	35	991	1.9*	850	82	p. 53
1105SS	Stainless Steel - Type 316	Super Air Nozzle	3/8 MNPT	35	991	1.9*	850	82	p. 53
HP1125	Zinc Aluminum alloy	2" High Power Flat Super Air Nozzle	1/4 FNPT	37	1,039	2.2†	1,134	83	p. 53
HP1125SS	Stainless Steel - Type 316	2" High Power Flat Super Air Nozzle	1/4 FNPT	37	1,039	2.2†	1,134	83	p. 53
1111-4	Zinc Aluminum alloy	Super Air Nozzle Cluster	3/8 FNPT	56	1,585	3.2*	1,451	82	p. 56
1106	Zinc Aluminum alloy	Super Air Nozzle	1/2 FNPT	60	1,699	3.3*	1,497	87	p. 54
1106SS	Stainless Steel - Type 316	Super Air Nozzle	1/2 FNPT	60	1,699	3.3*	1,497	87	p. 54
1107	Zinc Aluminum alloy	Super Air Nozzle	1/2 MNPT	60	1,699	3.3*	1,497	87	p. 54
1107SS	Stainless Steel - Type 316	Super Air Nozzle	1/2 MNPT	60	1,699	3.3*	1,497	87	p. 54
1112	Zinc Aluminum alloy	Super Air Nozzle	3/4 FNPT	91	2,577	4.5*	2,041	96	p. 54
1112SS	Stainless Steel - Type 316	Super Air Nozzle	3/4 FNPT	91	2,577	4.5*	2,041	96	p. 54
1113	Zinc Aluminum alloy	Super Air Nozzle	3/4 MNPT	91	2,577	4.5*	2,041	96	p. 54
1113SS	Stainless Steel - Type 316	Super Air Nozzle	3/4 MNPT	91	2,577	4.5*	2,041	96	p. 54
1111-7	Zinc Aluminum alloy	Super Air Nozzle Cluster	1/2 FNPT	98	2,773	5.7*	2,585	85	p. 56
1114	Zinc Aluminum alloy	Super Air Nozzle	1 FNPT	135	3,823	6.6*	3,005	99	p. 54
1114SS	Stainless Steel - Type 316	Super Air Nozzle	1 FNPT	135	3,823	6.6*	3,005	99	p. 54
1115	Zinc Aluminum alloy	Super Air Nozzle	1 MNPT	135	3,823	6.6*	3,005	99	p. 54
1115SS	Stainless Steel - Type 316	Super Air Nozzle	1 MNPT	135	3,823	6.6*	3,005	99	p. 54
1111-12	Zinc Aluminum alloy	Super Air Nozzle Cluster	1 FNPT	168	4,754	9.8*	4,445	89	p. 56
1116	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 FNPT	188	5,324	9.4*	4,252	102	p. 55
1117	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 MNPT	188	5,324	9.4*	4,252	102	p. 55
1118	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 FNPT	300	8,495	15*	6,804	106	p. 55
1119	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 MNPT	300	8,495	15*	6,804	106	p. 55
1120	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 FNPT	460	13,026	23*	10,433	109	p. 55
1121	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 MNPT	460	13,026	23*	10,433	109	p. 55

* 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 Su_er Air Nozzles™



Model HP1126 1/8 NPT female
Material: Zinc Aluminum alloy

Model HP1126SS 1/8 NPT female
Material: Type 316 Stainless Steel



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

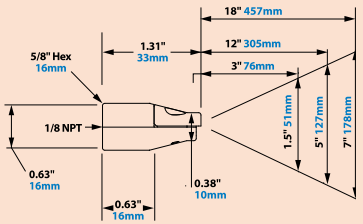
Model HP1126 and HP1126SS
1" High Power Flat Super Air Nozzles

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	462	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



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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An INTELLIGENT COMPRESSED AIR® Product

High Power Safety Air Nozzles™



Model HP1002 1/4 NPT female
Material: Brass

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

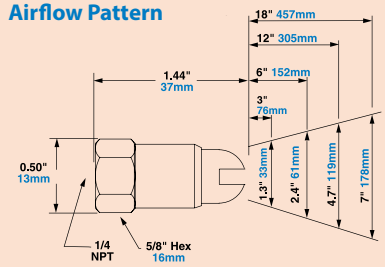
Model HP1002 and HP1002SS High Power Safety Air Nozzles

Provides 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 blowoffs delivering the same force.

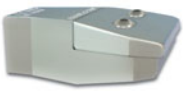
Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
32	906	1.8	792	87

* 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

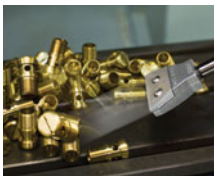


2" High Power Flat Super Air Nozzles™



Model HP1125 1/4 NPT female
Material: Zinc Aluminum alloy

Model HP1125SS 1/4 NPT female
Material: Type 316 Stainless Steel



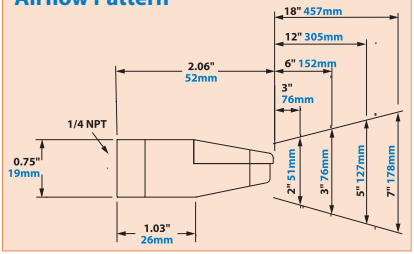
Model HP1125 and HP1125SS 2" High Power Flat Super Air Nozzles

EXAIR's 2" High Power Flat Super Air Nozzles produce a flat 2" (51mm) wide airstream with a strong blowing force of 2.2 pounds. 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	1,134	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.

Dimensions and Airflow Pattern



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

NEW **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

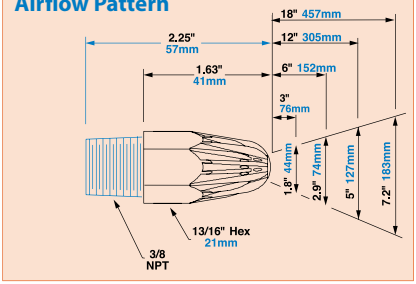
Model 1104, 1104SS, 1104-PEEK, 1105 and 1105SS 3/8 NPT Super Air Nozzles

EXAIR's 3/8 NPT Super Air Nozzles produce 1.9 lbs 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	850	82

* 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



High Force Air Nozzles

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 1107 1/2 NPT male
Material: Zinc Aluminum alloy

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

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

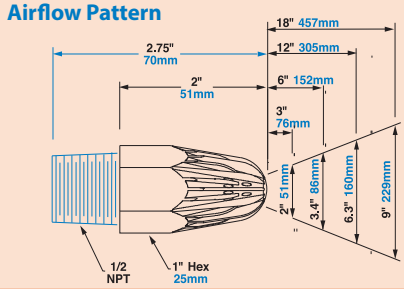
EXAIR's 1/2 NPT Super Air Nozzles produce 3.3 lbs of blowing force – 4 times that of ordinary nozzles. Air consumption and noise are extremely low compared to that of open pipe or copper tubes.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
60	1,699	3.3	1,497	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

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

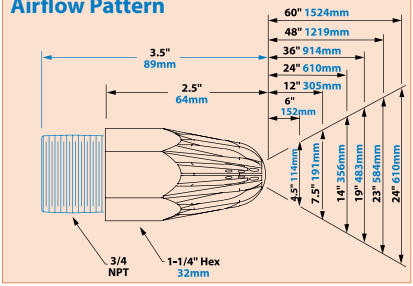
Model 1112, 1112SS, 1113 and 1113SS 3/4 NPT Super Air Nozzles

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 of blowing force – over 5 times that of ordinary nozzles.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
91	2,577	4.5	2,041	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

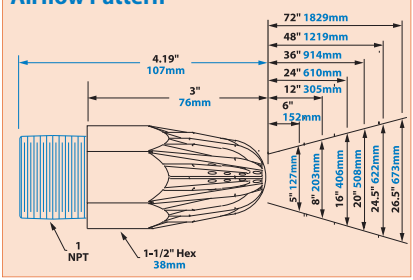
EXAIR's 1 NPT Super Air Nozzles optimize entrained airflow across the nozzle surface to minimize the noise level while providing extremely strong blowing force. They produce 6.6 lbs of blowing force – over 8 times that of ordinary nozzles.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
135	3,823	6.6	3,005	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



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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

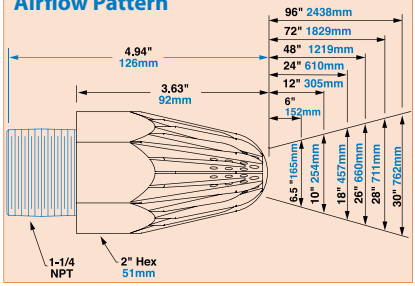
EXAIR's 1-1/4 NPT Super Air Nozzles provide exceptionally strong blowing force. They produce 9.4 lbs of blowing force – almost 12 times that of the standard Super Air Nozzle.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
188	5,324	9.4	4,252	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.



Dimensions and Airflow Pattern





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



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

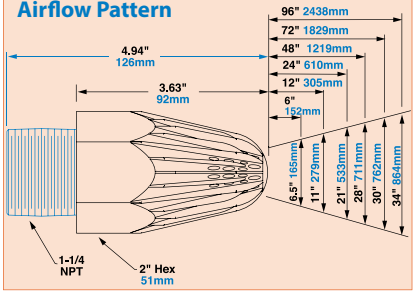
Model 1118 and 1119
1-1/4 NPT Super Air Nozzles

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 of blowing force – almost 18 times that of the standard Super Air Nozzle.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
300	8,495	15	6,804	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





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



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

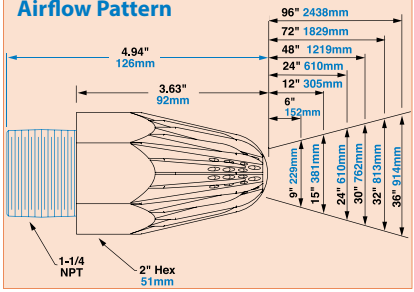
Model 1120 and 1121
1-1/4 NPT Super Air Nozzles

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 of blowing force – almost 28 times that of the standard Super Air Nozzle.

Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
460	13,026	23	10,433	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



Super Air Nozzle Clusters

Super Air Nozzle Clusters

Model 1111-4 Super Air Nozzle Cluster

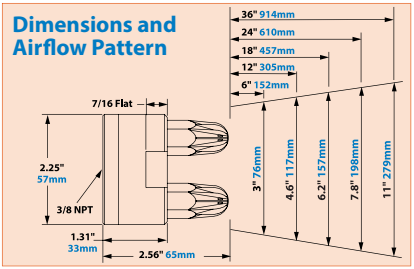


Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
56	1,585	3.2	1,451	82

* 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

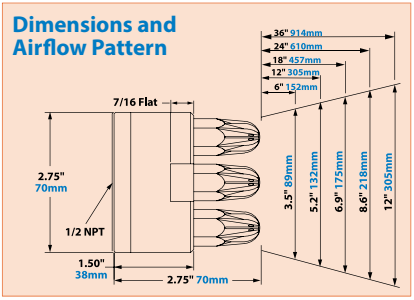


Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
98	2,773	5.7	2,585	85

* 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

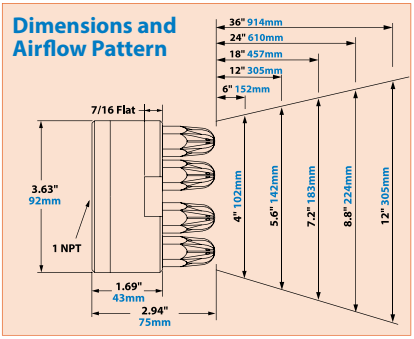


Air Consumption		Force*		Sound Level
SCFM	SLPM	Lbs	Grams	dBA
168	4,754	9.8	4,445	89

* 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

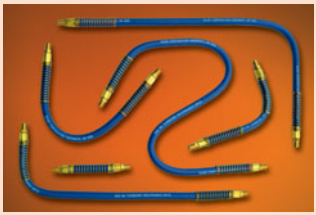


Flexible Stay Set Hoses™

Adding Flexibility

For applications where frequent repositioning of the Air Nozzle or Jet 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 x 1/4 MNPT has a 1/4 NPT male fitting on each end and the 1/4 MNPT x 1/8 FNPT 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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Website : www.spraybest.nl

An INTELLIGENT COMPRESSED AIR® Product

Flexible Stay Set Hoses™ continued



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

The Air Nozzles shown above 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 1108SS-NPT
Atto 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 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 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 6019
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.

The Air Nozzles and Jets shown above 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

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 infinitely vary the force and flow.



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

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 1100 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 above) as a dash number after the Air Nozzle or Jet model number.
   Example: A Model 1100 Super Air Nozzle with a Model 9212 12" (305mm) Stay Set Hose is a Model 1100-**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: A Model 1100 Super Air Nozzle with a 12" (305mm) Stay Set Hose and One Outlet Magnetic Base is a Model 1100-9**3**12.



A Model 1100-9312 Super Air Nozzle with a 12" (305mm) Stay Set Hose and One Outlet Magnetic Base.

Blowoff Systems

Blowoff Kits



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



Model # 1910

Instant Blowoff Station includes

(1) 1100 Super Air Nozzle
(1) 9212 12" (305mm) Stay Set Hose
(1) 9042 Magnetic Base
(1) 9040 Foot Pedal
(2) 900061 10' Compressed Air Hose



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

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

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