

Mini Super Air Nozzles™



Model 1102 1/8 NPT female
Material: Zinc Aluminum alloy

Model 1102SS 1/4 NPT female
Material: Type 316 Stainless Steel



Model 1103 1/8 NPT male
Material: Zinc Aluminum alloy

Model 1103SS 1/4 NPT female
Material: Type 316 Stainless Steel

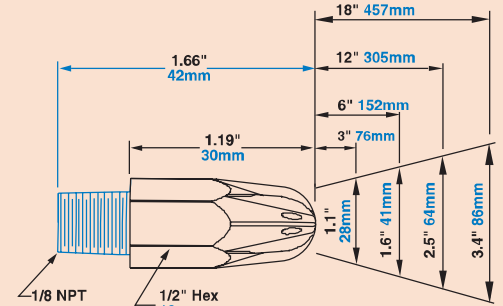
Model 1102, 1102SS, 1103 and 1103SS Mini Super Air Nozzles

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 1101 1/4 NPT male
Material: Zinc Aluminum alloy

Model 1101SS 1/4 NPT female
Material: Type 316 Stainless Steel



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

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

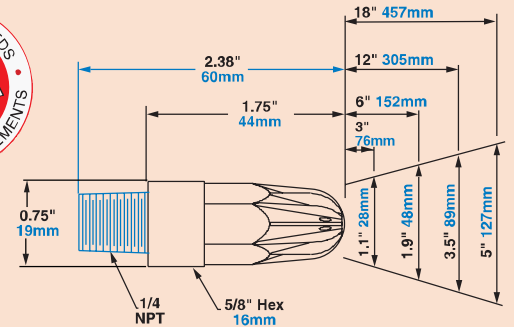
EXAIR's award winning Super Air Nozzles deliver high performance suitable for a wide range of blowoff, drying and cooling applications. The aerodynamic design of this engineered Super Air Nozzle directs the air to a single point of convergence, delivering hard-hitting force. It dramatically reduces air 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)

Dimensions and Airflow Pattern



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



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 54 for details.

Air Nozzles & Jets

Air Nozzles

Safety Air Nozzles



Model 1001 1/8 NPT female
Material: Brass

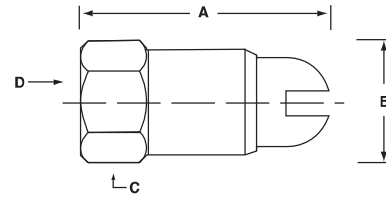
Model 1002 1/4 NPT female
Material: Brass

Model 1002SS 1/4 NPT female
Material: 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.

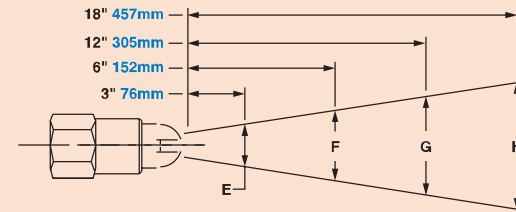


Model	Air Consumption		Force*		Sound Level
	SCFM	SLPM	Ozs	Grams	dBA
1001	10	283	9	255	78
1002	17	481	16	453	80
1002SS	17	481	16	453	80
1003	18	509	18	510	83

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

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

Airflow Pattern



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

Adjustable Air Nozzles



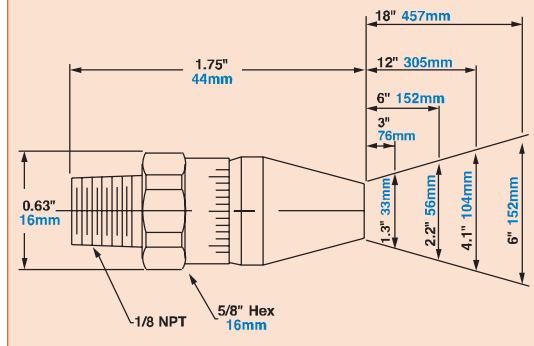
Model 1009 1/8 NPT male
Material: Aluminum

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.

Dimensions and Airflow Pattern



Model	Air Consumption		Force*		Sound Level
	SCFM	SLPM	Ozs	Grams	dBA
1009	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)



2" Super Air Nozzles™



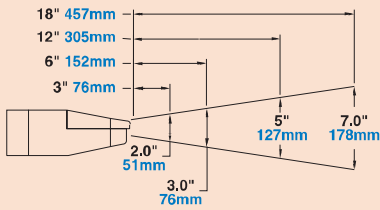
Model 1122 1/4 NPT female
Material: Zinc Aluminum alloy

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

Air Consumption		Force*		Sound Level
SCFM	SLPM	Ozs	Grams	dBA
22	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.

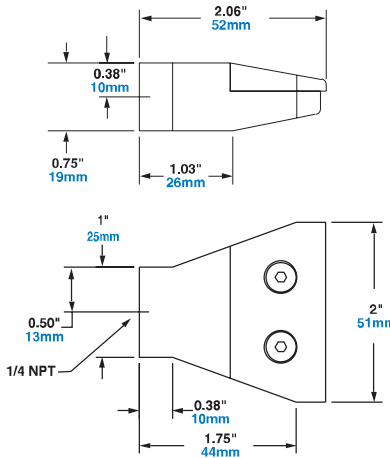
Airflow Pattern



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

**Model 1122 and 1122SS
2" Super Air Nozzles**

EXAIR's 2" (51mm) Super Air Nozzle is a highly efficient, unique flat air nozzle. The 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.



The Model 1122SS Stainless Steel Shim Set for the 2" Super Air Nozzle (shown) includes a .005" (0.13mm), .010" (0.25mm) and .020" (0.51mm) thick shim. A .015" (0.38mm) shim is installed.

The 2" Super Air Nozzle has 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 thickness.

*Patent #5402938



**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" 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" 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/min.

Most large plants know their cost per 1000 standard cubic feet of compressed air. If you don't know your actual cost per 1000 SCF, \$0.25 is a reasonable average to use.

SCFM saved x 60 minutes x cost/1000 SCF = dollars saved per hour.

- In this case, 9.2 SCFM x 60 x \$0.25/1000 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" Super Air Nozzle	*7.3-30 SCFM	62-81	0.5-1.9

*Air consumption dependent upon shim size.

EXAIR's 2" Super Air Nozzle can pay for itself in less than 15 days.

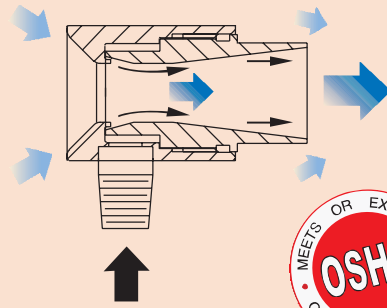
Air Nozzles & Jets

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

Air Nozzles & Jets



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.

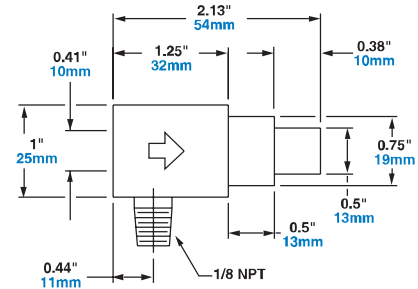
Model 6013 High Velocity Air Jet

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

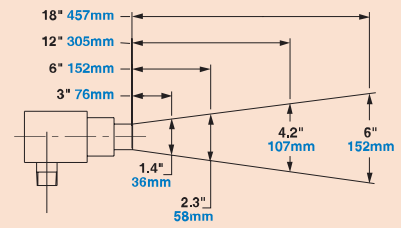
Shim Sets: Shims can be used to change the gap on the Model 6013 High Velocity Air Jet. Changing shims will alter air consumption, force, flow and vacuum capability. Order Model 6313 Air Jet Shim Set.

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



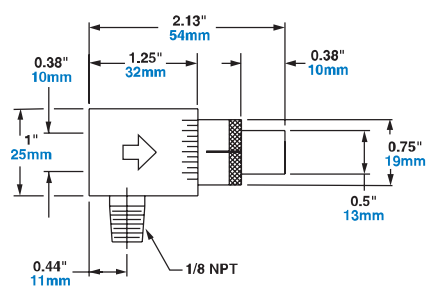
A combination of Model 6013 High Velocity Air Jets and Model 6042 Adjustable Air Amplifiers dry this engine casting.

Model 6019 Adjustable Air Jet

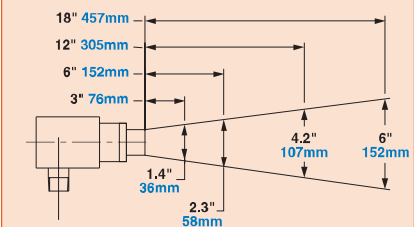
This is an adjustable version of the Model 6013 High Velocity Air Jet. Airflow and thrust are easily adjusted using the micrometer gap indicator.

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

* Force measured at 12" (305mm) from target with a .005" (0.15mm) factory setting
Sound level measured at 3' (914mm)
All measurements taken at 80 PSIG (5.5 BAR)



Airflow Pattern



High Force Air Nozzles **EXAIR**



Some applications require extremely high force with extensive reach. EXAIR's High Power Safety Air Nozzles, 2" High Power 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. Now, 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 dBA	More Details
				SCFM	SLPM	Lbs	Grams		
HP1002	Brass	High Power Safety Air Nozzle	1/4 NPTF	32	906	1.8*	792	87	p.49
HP1002SS	Stainless Steel - Type 303	High Power Safety Air Nozzle	1/4 NPTF	32	906	1.8*	792	87	p.49
1104	Zinc Aluminum alloy	Super Air Nozzle	3/8 NPTF	35	991	1.9*	850	82	p.50
1104SS	Stainless Steel - Type 316	Super Air Nozzle	3/8 NPTF	35	991	1.9*	850	82	p.50
1105	Zinc Aluminum alloy	Super Air Nozzle	3/8 NPTM	35	991	1.9*	850	82	p.50
1105SS	Stainless Steel - Type 316	Super Air Nozzle	3/8 NPTM	35	991	1.9*	850	82	p.50
HP1125	Zinc Aluminum alloy	2" High Power Super Air Nozzle	1/4 NPTF	37	1039	2.2†	1134	83	p.50
HP1125SS	Stainless Steel - Type 316	2" High Power Super Air Nozzle	1/4 NPTF	37	1039	2.2†	1134	83	p.50
1111-4	Zinc Aluminum alloy	Super Air Nozzle Cluster	3/8 NPTF	56	1585	3.2*	1451	82	p.52
1106	Zinc Aluminum alloy	Super Air Nozzle	1/2 NPTF	60	1699	3.3*	1497	87	p.50
1106SS	Stainless Steel - Type 316	Super Air Nozzle	1/2 NPTF	60	1699	3.3*	1497	87	p.50
1107	Zinc Aluminum alloy	Super Air Nozzle	1/2 NPTM	60	1699	3.3*	1497	87	p.50
1107SS	Stainless Steel - Type 316	Super Air Nozzle	1/2 NPTM	60	1699	3.3*	1497	87	p.50
1112	Zinc Aluminum alloy	Super Air Nozzle	3/4 NPTF	91	2577	4.5*	2041	96	p.51
1113	Zinc Aluminum alloy	Super Air Nozzle	3/4 NPTM	91	2577	4.5*	2041	96	p.51
1111-7	Zinc Aluminum alloy	Super Air Nozzle Cluster	1/2 NPTF	98	2773	5.7*	2585	85	p.52
1114	Zinc Aluminum alloy	Super Air Nozzle	1 NPTF	135	3823	6.6*	3005	99	p.51
1115	Zinc Aluminum alloy	Super Air Nozzle	1 NPTM	135	3823	6.6*	3005	99	p.51
1111-12	Zinc Aluminum alloy	Super Air Nozzle Cluster	1 NPTF	168	4754	9.8*	4445	89	p.52
1116	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 NPTF	188	5324	9.4*	4252	102	p.51
1117	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 NPTM	188	5324	9.4*	4252	102	p.51
1118	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 NPTM	300	8495	15*	6804	6804	p.51a
1119	Zinc Aluminum alloy	Super Air Nozzle	1-1/4 NPTM	300	8495	15*	6804	6804	p.51a

For Air Nozzles with lower force, see page 43.

* 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" (.64mm) shim installed.

NPTF = NPT Female
NPTM = NPT Male

Air Nozzles & Jets

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

