

based on trust and high service standards will help us better address your needs and concerns.



Air Amplifiers

The Streamtek Air Amplifier is a simple, low cost way to move smoke, air, light materials, and fumes.

Using just a small amount of compressed air as their power source, Air Amplifiers pull in massive volumes of air from the surrounding environment to produce high velocity, high volume outlet flows. Quiet, efficient Streamtek Air Amplifiers will create output flows up to 25 times their consumption rate.

In addition, the Streamtek Air Amplifiers can be used to gather and remove mist, smoke, fumes, and light materials because of their ability to entrain large volumes and convey them away.

Air Amplifier Features

- No moving parts for low/no maintenance,
- No cost on electricity (as it's powered by compressed air),
- Easy flow, vacuum and velocity control,
- Full-fledged control of outlet flow by opening/closing the air gap,
- Regulation of air pressure to decrease outlet flow,
- Ducting of air flow possible to draw fresh air and discharge stale smoke and fumes away,
- Reduced cycle times for cooling aluminum castings.

Advantages

- Low cost
- Greatly reduced noise (Below 80db)
- Easy to control flow/velocity
- Adjustable without the use of tools
- Zero maintenance
- No electricity, moving parts, or explosion hazard
- Adaptable to many applications

Our Air Amplifiers are also known to emit less noise without compromising their performance quotient. They have the capacity to offer an output that is 25x more than their consumption rate. You can order them online with instant assistance from our customer care team.

Can I connect the cold end of a Vortex Tube to an Air Amplifier?

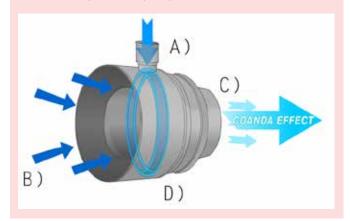
No. The Air Amplifier would restrict the air flow of the Vortex Tube to the point where back-pressure would limit the cooling capacity of the Vortex Tube. The cold end of the Vortex Tube should not be subjected to a backpressure in excess of 5 PSIG.

I'd like to attach ducting to the Air Amplifier, how much ducting is ok?

We recommend a maximum of 15' of ducting on the exhaust side of the Air Amplifier and a maximum of 5' of duct on the intake side of the Air Amplifier.

How do Air Amplifiers work?

- (A) Compressed air flows through the NPTF inlet and into an annular chamber. It's then directed through a small ring nozzle at an extreme high velocity.
- **(B)** The airflow now enters the inside of the amplifier over a 'coanda' profile, thereby creating a vacuum which entrains the surrounding air into the primary airstream.
- **(C)** This combined flow of surrounding and primary air is then exhausted from the Air Amplifier in a high velocity, high volume flow.





Both the vacuum intake (inlet) and discharge ends on our **Air Amplifiers can be ducted** for fume conveying and light material applications. It is important that care is taken to avoid restrictions that could cause suction resistance or back pressure that will reduce the performance levels.

Air Amplifier Applications

Automotive:

Remove coolant, water, dust, and scrap in manufacturing operations. Cool enamel in parts manufacturing, body shops, or assembly lines.

Bottling:

Blow-off water, dust, dirt, etc., from tops of bottles/cans prior to labeling.

Food:

Eliminate water from fruits, vegetables, or even packaging.

Removing Mist/Fumes/Etc.



A 1-1/4" Adjustable Air Amplifier (Model - SA-M114A) removes the oily mist from machining operations. This prevents the mist from escaping into the surrounding environment! The Air Amplifier needs no electricity and is compact, making it ideal to mount inside the machine for optimal performance.

Remove Dust in Grinding



A 1-1/4" Adjustable Aluminum Air Amplifier (Model No. SAM114A-1) adds extra vacuum power to an existing vacuum system to improve the collection of particles from grinding.

We have over 15 years of experience in compressed air-operated products. All our products are manufactured in-house. We pride ourselves on keeping costs low and eliminating the middle man.

Manufacturing:

Exhaust fumes and dust, part ejection, liquid blow-off from all types of parts, convey away waste, and replace open air lines and fans.

Paper/Plastic:

Sawdust, scrap blow-off, trim removal in converting applications.

demand more high-tech solution

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Why choose Air Knife?

Air Knife customers report an overall 95% reduction in costs related to the functions their Air Knife is employed for. Streamtek offers many products that can help you reduce the costs in your plant or shop by 95%. Modern business calls for effective tools that save you money. Heavy regulations

demand more high-tech solutions, and the Air Knife is that solution for you.

The increase in production that the Air Knife brings to your business allows you to compete for a larger market share. The Air Knife's quality is second to none and is backed by Streamtek's quality guarantee. The use of the Air Knife can reduce labor costs, which include

matched taxes, wages, sick time, and workman's compensation. It also reduces energy costs up to 95%. You will be amazed by the positive effect it has on your bottom line. The increase in production from your new Air Knife and related Air Knife products will help you meet your deadlines and exceed your quotas. Return to profitability with the Streamtek Air Knife.

Adjustable Air Amplifier

The Adjustable Air Amplifier is ideal for removing fumes, smoke, and light materials. Since the Air Amplifier moves large volumes of air using only a small amount of compressed air, they are economical to operate.

	Adjustable Air Amplifier Performance Data							
Diameter	Model #	Material	Throat Diameter	Amplification Ratio				
3/4"	SAM034A	Aluminum 275°F (135°C)	0.40" (10 mm)	10:1				
1"	SAM001A	Aluminum 275°F (135°C)	0.84" (21 mm)	13:1				
11⁄4"	SAM114A	Aluminum 275°F (135°C)	1.01" (26 mm)	16:1				
2"	SAM200A	Aluminum 275°F (135°C)	1.67" (42 mm)	20:1				
21/2"	SAM212A	Aluminum 275°F (135°C)	2.03" (52 mm)	23:1				
3"	SAM003A	Aluminum 275°F (135°C)	2.20" (56 mm)	25:1				
4"	SAM400A	Aluminum 275°F (135°C)	3.02" (77 mm)	30:1				
-	-	-	-	-				
3/4"	SAM034S	303 Stainless - 400°F (204°C)	0.40" (10 mm)	10:1				
1"	SAM001S	303 Stainless - 400°F (204°C)	0.84" (21 mm)	13:1				
11⁄4"	SAM114S	303 Stainless - 400°F (204°C)	1.01" (26 mm)	16:1				
2"	SAM200S	303 Stainless - 400°F (204°C)	1.67" (42 mm)	20:1				
21/2"	SAM212S	303 Stainless - 400°F (204°C)	2.03" (52 mm)	23:1				
3"	SAM003S	303 Stainless - 400°F (204°C)	2.20" (56 mm)	25:1				
4"	SAM400S	303 Stainless - 400°F (204°C)	3.02" (77 mm)	30:1				

How to Determine Air Consumption & Total Output Flow for any Adjustable Air Amplifier?

Total Airflow:

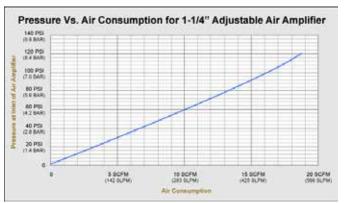
From the performance graphs (below), determine the total output flow for the Hi-Temp Adjustable Air Amplifier at any pressure.

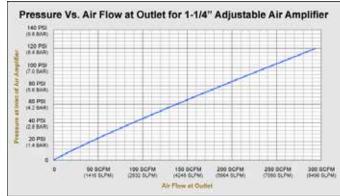
Air Consumption:

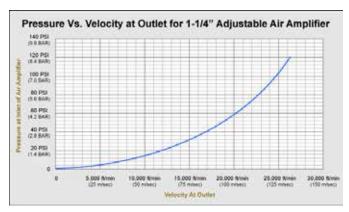
(Tested with factory pre-set .002" Gap). See chart below for quick reference OR divide total output flow by amplification ratio, using performance graphs below.

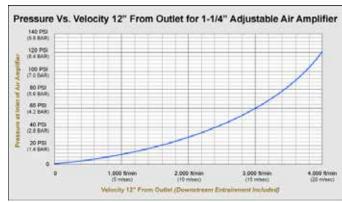
Adjustable Air Amplifier Air Consumption and Total Output Airflow									
	1-1	1-1/4"		2"		2-1/2"		4"	
PRESSURE SUPPLY	SCFM	SLPM	SCFM	SLPM	SCFM	SLPM	SCFM	SLPM	
20 PSIG (1.4 Bar)	4.5	127	8.0	226	12.0	340	18.0	509	
40 PSIG (2.8 Bar)	7.0	198	12.0	340	19.5	552	28.0	792	
60 PSIG (4.1 Bar)	10.0	283	16.0	453	24.5	693	37.0	1047	
80 PSIG (5.5 Bar)	13.0	367	22.0	623	29.0	821	52.0	1472	
100 PSIG (6.4 Bar)	14.5	410	25.5	722	35.0	991	60.0	1698	
120 PSIG (8.4 Bar)	17.0	481	30.5	863	42.0	1189	66.5	1882	

1-1/4" Adjustable Air Amplifier - Performance Graphs.



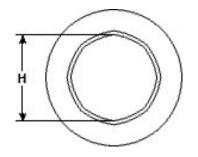


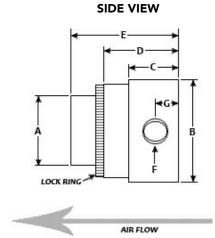




Adjustable Air Amplifier Dimensions

TOP VIEW





Did you know?

Can compressed air pressure be increased with an Air Amplifier?

No. The Adjustable Air Amplifier only amplifies volume, not pressure. The outlet pressures are well below 1 PSIG. The Air Amplifiers takes energy from a small volume of compressed air to produce its high velocity, high volume, low pressure output airflow.

	Hi-Temp Adjustable Air Amplifier Dimensions								
	A (O.D.)	В	С	D	E	F	G	H (I.D.)	
3/4"	3/4"	1"	-	1.35"	2.10"	1/8"	0.45"	0.40"	
1″	1"	1.75"	1.25"	1.65"	2.54"	1/4"	0.80"	0.84"	
11/4"	1.25"	2.00"	1.37"	1.85"	2.85"	1/4"	1.00"	1.01"	
2"	2.00"	3.00"	1.50"	2.25"	3.25"	3/8"	1.05"	1.67"	
2 1/2"	2.50"	3.50"	1.65"	2.4"	3.64"	3/8"	1.18"	2.03"	
3"	3.00"	4.00"	1.80"	2.55"	4.02"	1/2"	1.30"	2.20"	
4"	4.00"	5.00"	3.20"	2.85"	5.00"	1/2"	1.50"	3.02"	

Adjustable Air Amplifier Description

Aluminum: Unit Only						
	Diameter Model # Mate					
	3/4"	SAM034A	Aluminum			
-	1"	SAM001A	Aluminum			
	11⁄4″	SAM114A	Aluminum			
0	2"	SAM002A	Aluminum			
	21/2"	SAM212A	Aluminum			
	3"	SAM003A	Aluminum			
	4"	SAM004A	Aluminum			

Aluminum: Standard Kit							
		Diameter Model # Materi					
		3/4"	SAM034A-1	Aluminum			
		1"	SAM001A-1	Aluminum			
	11/4"		SAM114A-1	Aluminum			
		2"	SAM002A-1	Aluminum			
8	7	2½"	SAM212A-1	Aluminum			
		3"	SAM003A-1	Aluminum			
		4"	SAM004A-1	Aluminum			

Aluminum: Deluxe Kit						
	Diameter	Model #	Material			
	3/4"	SAM034A-2	Aluminum			
	1"	SAM001A-2	Aluminum			
	1¼"	SAM114A-2	Aluminum			
	2"	SAM002A-2	Aluminum			
88 Y -	2½"	SAM212A-2	Aluminum			
	3"	SAM003A-2	Aluminum			
	4"	SAM004A-2	Aluminum			

Stainless Steel: Unit Only						
	Diameter	Model #	Material			
	3/4"	SAM034S	Stainless Steel			
	1"	SAM001S	Stainless Steel			
	11⁄4″	SAM114S	Stainless Steel			
	2"	SAM002S	Stainless Steel			
Name of	21/2"	SAM212S	Stainless Steel			
	3"	SAM003S	Stainless Steel			
	4"	SAM004S	Stainless Steel			

Stainless Steel: Unit Only							
		Diameter Model # Mater					
		3/4"	SAM034S-1	Stainless Steel			
		1"	SAM001S-1	Stainless Steel			
	展川	11⁄4″	SAM114S-1	Stainless Steel			
	7	2"	SAM002S-1	Stainless Steel			
	V	21/2"	SAM212S-1	Stainless Steel			
		3"	SAM003S-1	Stainless Steel			
		4"	SAM004S-1	Stainless Steel			

Stainless Steel: Unit Only							
	Diameter	Model #	Material				
	3/4"	SAM034S-2	Stainless Steel				
	1"	SAM001S-2	Stainless Steel				
0	1¼"	SAM114S-2	Stainless Steel				
	2"	SAM002S-2	Stainless Steel				
83 V -	21/2"	SAM212S-2	Stainless Steel				
	3"	SAM003S-2	Stainless Steel				
	4"	SAM004S-2	Stainless Steel				

It's true. Compressed air is very expensive. What's equally true though is that compressed air is found in over 99% of manufacturing plants and 70% of all manufacturers have a compressed air system in place. These systems power a variety of equipment including machine tools, material handling equipment, separation equipment, and spray-painting equipment.

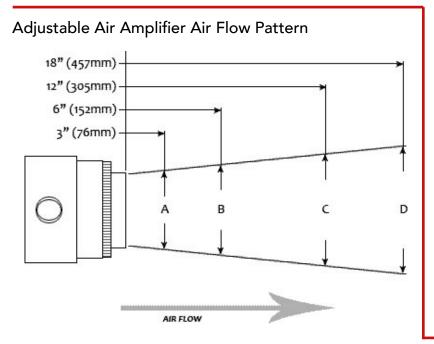
Why is compressed air used by so many manufacturers? It is because compressed air typically does the job better than any other method. The trick is to keep your compressed air supply as efficient as possible, but at the same time keeping the air usage as frugal as possible. Call now to see how Streamtek can help!

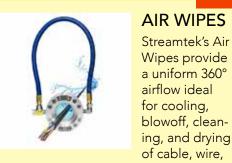


Hi- Temperature Adjustable Air Amplifier

The Streamtek Hi-Temp Adjustable Air Amplifier is ideal for moving hot air to surfaces which require uniform heating while in a furnace or oven. They are typically used as exhausters. The Amplifier is made up of 316 Stainless Steel and can withstand up to 700°F.

		Performance Data		
Diameter	Model No.	Material	Throat Diameter	Amplification Ratio
1½"	SAM114HS	316 Stainless - 700°F	1.01" (26 mm)	16:1
2½"	SAM212HS	316 Stainless - 700°F	2.03" (52 mm)	25:1





hose, extruded shapes, pipe and more. The open and shut 2-piece design allows for easy placement of products.



MODEL NUMBER	А	В	С	D
SAM114A, SAM114S, SAM114HS	2" (51mm)	3" (76mm)	4.8" (122mm)	6.3" (160mm)
SAM212A, SAM212S, SAM212HS	3.1" (79mm)	4" (102mm)	5.5" (140mm)	7.7" (196mm)

How to Determine Air Consumption & Total Output Flow for any Hi-Temp Adjustable Air Amplifier?

Total Airflow:

From the performance graphs (below), determine the total output flow for the Hi-Temp Adjustable Air Amplifier at any pressure.

Air Consumption:

(Tested with factory pre-set .002" Gap). See chart below for quick reference OR divide Total Output Flow by Amplification Ratio, using performance graphs below.

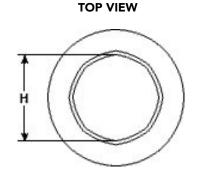
High -Temp Adjustable Air Amplifier Air Consumption and Total Output Airflow							
	Model SAM1	14HS (1-1/4")	Model SAM212HS (2-1/2")				
PRESSURE SUPPLY	SCFM	SLPM	SCFM	SLPM			
20 PSIG (1.4 Bar)	4.5	127	12.0	340			
40 PSIG (2.8 Bar)	7.0	198	19.5	552			
60 PSIG (4.1 Bar)	10.0	283	24.5	693			
80 PSIG (5.5 Bar)	13.0	367	29.0	821			
100 PSIG (6.4 Bar)	14.5	410	35.0	991			
120 PSIG (8.4 Bar)	17.0	481	42.0	1189			

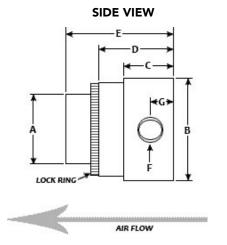
How do I mount the Air Amplifier?

A rigid air pipe is the optimal way to mount the Air Amplifier. The rigid air pipe will easily hold up to the very large air flow created.

To mount Streamtek Air Amplifier you will also need some of our Amplifier accessories. Their information's you can find on **Page 47**.

Adjustable Air Amplifier Dimensions





	A (O.D.)	В	С	D	E	F	G	H (I.D.)
1-1/4"	1.25"	2.25"	2.10"	2.27"	4.27"	1/4"	1.14"	1.01"
	(32 mm)	57 mm)	(53 mm)	(58 mm)	(108 mm)	(6 mm)	(29 mm)	(26 mm)
2-1/2"	2.50"	3.50"	2.85"	4.00"	6.00"	3/8"	2.05"	2.03"
	(64 mm)	(89 mm)	(72 mm)	(102 mm)	(152 mm)	(10 mm)	(52 mm)	(51 mm)

Adjustable Air Amplifier Description

316 Stainless: Unit Only					
	Model # Diameter		Material		
	SAM114HS	1¼"	Hi-Temp Stainless (700F)		
	SAM212HS	2½"	Hi-Temp Stainless (700F)		

316 Stainless: Standard Kit					
		Model # Diameter		Material	
A		SAM114HS-1	1¼"	Hi-Temp Stainless (700F)	
Nº (II		SAM212HS-1	2½"	Hi-Temp Stainless (700F)	

316 Stainless: Deluxe Kit						
	Model #	Diameter	Material			
	SAM114HS-2	1¼"	Hi-Temp Stainless (700F)			
22 Y	SAM212HS-2	2½"	Hi-Temp Stainless (700F)			

The air amplifier is a **simple and cost-effective solution** designed for moving air, smoke, fumes, etc. This product has been used extensively in various applications which include: boosting insufficient shop air or supply air, high pressure air cleaning of weld areas, boosting air for part removal valve gates, automation equipment for injection molding, etc.

We at Streamtek – a leading manufacturer of compressed air-operated products – serve you better by providing best-in-class air amplifiers that will make all of your large air handling jobs easier and simpler.

More information can be found on our blog stream-tek.com/blog



Our Vision and Goal

Our vision is to incorporate quality and effectiveness into our everyday production. We strongly stand behind our products from the moment they are produced to the moment they are taken out of use. All of our products come with an unmatched 6 year warranty against failure. If found faulty within six years, a replacement product will be shipped free of charge. Our goal is to build a long lasting partnership with all our customers.

Stream-Tek Guarantees its catalogued product for 30 days. If you are not completely satisfied for any reason with that time, return the product for a full credit with NO restocking fee!

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