Air Amplifier

Air Amplification is process which uses surrounding air and a little of pressured / compressed air to create air flow or air blow off, which is known as Coanda effect . Air Amplification Process minimizes both Pressure loss and Noise Level.

The Blow off air from air amplifiers can cut through any boundary layer of heat and cool any object that is hot quite quickly depending on the material to be cooled .

Uses of Air Amplifiers

Cooling: Fast Cooling of materials like Aluminium , Brass and Copper. Slow Cooling for material such as steel and Plastic

Conveying: Food Industries for conveying food items, such as peanuts, Groundnuts et c Conveying cutting metal remains from the cutting position to a drum or a static place

Extractor: Fume Extractor from a weldin g place, where lot of dust is product. This dust is harmful and creates lot of pollution. With the help of Fume Extractor, the fumes can be sucked and blown off in the air.

The main product for the process of Air Amplification is Air Amplifiers. There are two types of Air Amplifiers, Fixed Air Amplifier and Adjustable Air Amplifiers . The detail description of Adjustable Air Amplifier is as follows.

Adjustable Air Amplifiers

Adjustable Air amplifier takes energy from a small volume of compressed air to produce a high velocity, high volume, low pressure output air flow. It is easy to mount and maintains reducing both compressed air consumption and noise levels.

Adjustable Air Amplifiers don't come with Shims, they are manually adjustable with the help of a lock ring. The lock ring can adjust the air flow of the air amplifier, which can help to control the vacuum generated and the air blow off.

Features of Air Amplif iers

- The Adjustable Air Amplifiers are made of anodized aluminium for general applications or stainless steel for corrosive and high temperature use.
- High airflow amplification.
- Instant ON/OFF with no moving parts, no electricity or explosion hazard.

Benefits

- Longer life in difficult environments than other models.
- Lower compressed air consumption than ejectors and venturis.
- Maintenance free with output easily controlled, safe to use.

Application for Adjustable Air Amplifiers

Application	Description
Automotive:	Remove water, coolant, dust, and scrap in parts manufacturing/assembly operations. Cool enamel and water - based paints in parts manufacturing, auto body shops or assembly lines.
Plastic:	Dust and scrap blow off. Cool mouldings after extrusion, then blow off and dry prior to forming.
Printing:	Cooling to set some inks, scrap blow off.
Pharmaceutical:	Remove liquid prior to labelling or packaging was te removal for solid materials. Extract unfilled capsules by vacuum as they pass on a conveyor.
Bottling:	Blow off of water from the tops of cans, bottles prior to labelling, ink jetting, palletizing or packaging. Conveying light materials.
Metals:	Coolant and other liquid removal on process lines from Aluminium, Steel, Brass or other materials. Dry metals prior to other operations such as plating or polishing. Cool metal parts prior to coating or painting. Coolant mist removal. Boost vacuum systems to remove grinding dust. Cool steel forgings.
Paper & Lumber:	Sawdust removal and control by boosting the vacuum system, dust removal. Trim removal in converting applications.
Chemicals:	Blow off of chemicals or water prior to labelling or packaging.
Food:	Remove water from product or packaging.
General Manufacturing:	Part ejection, fume removal, dust and liquid blow off from all types of parts, conveying away waste, ideal for replacing fans in some cooling operations such as tempering glass.

Models of Adjustable Air Amplifiers:

Model	Size (Internal Diameter)	Amplification Ratio	Material	Air Consumption at 79.7 PSI
AIR-AMP00	3/4″	16:1	Anodised Aluminium & Stainless Steel	6.22 SCFM
AIR-AMP01	1-1/4″	15:1	Anodised Aluminium & Stainless Steel	12.45 SCFM
AIR-AMP02	2″	16:1	Anodised Aluminium & Stainless Steel	23.03 SCFM
AIR-AMP03	4″	17:1	Anodised Aluminium & Stainless Steel	39.83 SCFM

(See below for technical details of each model separately)

AIR AMPLIFIER AIR-AMP00

Air amplifier nozzle or air movers are a simple, inexpensive devices with virtually no maintenance that can convey fumes, smoke, lightweight materials and move a high volume of air for cooling, blowoff and drying applications. Air amplifiers are use the "coanda effect" which entrains a large amount of surrounding air using only a small amount of compressed air. The effect is an amplification of up to 17 times the airflow or more depending on the size of the Air amplifier, with reduced noise levels. Using only compressed air, the output flow and vacuum of the Air amplifiers is easily controlled by adjusting or opening the air gap and/or inlet pressure. Either end of the air amplifier may be ducted to address all kinds of applications from bringing in fresh air into an area. We have 2 versions available: standard Air amplifiers and adjustable Air amplifiers

Air consumption at 5.5 Bar	10 Nm³/h
Air flow at outlet	150 Nm³/h
Air Amplification	15:1
Sound level at 5 Bar	73 dB(A)
Material	Aluminum or Stainless steel
Shims	Stainless Steel
Longer life in difficult environments than competitive models	Yes
Internal diameter	19 mm
Connection type	Female 1/8"
Blowing pattern	Wide
Air velocity at outlet	115 m/s
Maintenance free with output easily controlled	Yes
Max operating pressure	7 Bar
Applications	Blow off and vacuum
Meets the OSHA directives	Yes
Meet the EU machine directives	Yes

AIR AMPLIFIER AIR-AMP01

Air amplifier nozzle or air movers are a simple, inexpensive devices with virtually no maintenance that can convey fumes, smoke, lightweight materials and move a high volume of air for cooling, blowoff and drying applications. Air amplifiers are use the "coanda effect" which entrains a large amount of surrounding air using only a small amount of compressed air. The effect is an amplification of up to 17 times the airflow or more depending on the size of the Air amplifier, with reduced noise levels. Using only compressed air, the output flow and vacuum of the Air amplifiers is easily controlled by adjusting or opening the air gap and/or inlet pressure. Either end of the air amplifier may be ducted to address all kinds of applications from bringing in fresh air into an area. We have 2 versions available: standard Air amplifiers and adjustable Air amplifiers

Air consumption at 5.5 Bar	20 Nm³/h
Air flow at outlet	322 Nm³/h
Air Amplification	15:1
Sound level at 5 Bar	74 dB(A)
Material	Aluminum or Stainless steel
Shims	Stainless Steel
Longer life in difficult environments than competitive models	Yes
Internal diameter	19 mm
Connection type	Female 1/4" BSP
Blowing pattern	Wide
Air velocity at outlet	120 m/s
Maintenance free with output easily controlled	Yes
Max operating pressure	7 Bar
Applications	Blow off and vacuum
Meets the OSHA directives	Yes
Meet the EU machine directives	Yes

AIR AMPLIFIER AIR-AMP02

Air amplifier nozzle or "air movers" from Air Products Corp., are a simple, inexpensive devices with virtually no maintenance that can convey fumes, smoke, lightweight materials and move a high volume of air for cooling, blowoff and drying applications. Air amplifier nozzles are use the "coanda effect" which entrains a large amount of surrounding air using only a small amount of compressed air. The effect is an amplification of up to 17 times the airflow or more (depending on the size) with reduced noise levels. Using only compressed air, the output flow and vacuum is easily controlled by adjusting or opening the air gap and/or inlet pressure. Either end of the air amplifier may be ducted to address all kinds of applications from bringing in fresh air into an area to removing nasty fumes. Be wary of unrealistic or unsubstantiated amplification ratios claimed by some companies.

Air consumption at 5.5 Bar	37 Nm³/h
Air flow at outlet	592 Nm³/h
Air Amplification	16:1
Sound level at 5 Bar	74 dB(A)
Material	Aluminum or Stainless steel
Shims	Stainless Steel
Longer life in difficult environments than competitive models	Yes
Internal diameter	51 mm
Connection type	Female 3/8" BSP
Blowing pattern	Wide
Air velocity at outlet	85 m/s
Maintenance free with output easily controlled	Yes
Max operating pressure	7 Bar
Applications	Blow off and vacuum
Meets the OSHA directives	Yes
Meet the EU machine directives	Yes

AIR AMPLIFIER AIR-AMP03

Air amplifier nozzle or air movers are a simple, inexpensive devices with virtually no maintenance that can convey fumes, smoke, lightweight materials and move a high volume of air for cooling, blowoff and drying applications. Air amplifiers are use the "coanda effect" which entrains a large amount of surrounding air using only a small amount of compressed air. The effect is an amplification of up to 17 times the airflow or more depending on the size of the Air amplifier, with reduced noise levels. Using only compressed air, the output flow and vacuum of the Air amplifiers is easily controlled by adjusting or opening the air gap and/or inlet pressure. Either end of the air amplifier may be ducted to address all kinds of applications from bringing in fresh air into an area. We have 2 versions available: standard Air amplifiers and adjustable Air amplifiers

Air consumption at 5.5 Bar	64 Nm³/h
Air flow at outlet	850 Nm³/h
Air Amplification	16:1
Sound level at 5 Bar	84 dB(A)
Material	Aluminum or Stainless steel
Shims	Stainless Steel
Longer life in difficult environments than competitive models	Yes
Internal diameter	102 mm
Connection type	Female 1/2"
Blowing pattern	Wide
Maintenance free with output easily controlled	Yes
Max operating pressure	7 Bar
Applications	Blow off and vacuum
Meets the OSHA directives	Yes
Meet the EU machine directives	Yes

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