

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 etc Conveying cutting metal remains from the cutting position to a drum or a static place

Extractor: Fume Extractor from a welding 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 Fixed Air Amplifier is as follows.

Fixed Air Amplifiers

Fixed 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.

Fixed Air amplifiers come with a .002" (.05mm) shim to control the compressed air exit gap which will work for 90% of all applications encountered. If greater force is required, more .002" (.05mm) shims or a .003" (.07mm) shim may be installed to open the gap for greater flow.

Fixed Air Amplifier Features:

- No moving parts – hence safer and maintenance free.
- Each end can be ducted for light conveying applications.
- Compact design, simple, lightweight and portable.
- Driven by air not electricity.
- Replaces fans used for blow-off, cleaning, drying, cooling and conveying.
- High airflow amplification.
- Longer life in difficult environments than competitive models.
- Lower compressed air consumption than ejectors and venturis.
- Maintenance free with output easily controlled, safe to use.

Applications of Airmasters Fixed Air Amplifiers:

Replaces fans used for blow-off, cleaning, drying, cooling and conveying.

Application	Description
Textile:	Scrap and trim removal on textiles to eliminate expensive vacuum systems.
Food:	Remove water from product or packaging.
Metals:	Coolant and other liquid removal on process lines for aluminium, steel, brass or other materials. Drying metals prior to other operations such as plating or polishing. Cooling metal parts prior to coating or painting. Coolant removal. Boost vacuum systems to remove grinding dust. Cool steel forgings.
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.
Paper & Lumber:	Sawdust removal and control by boosting the vacuum system for dust removal. Trim removal in converting applications.
Bottling:	Blow off of water from the tops of cans, bottles prior to labelling, ink jetting, palletizing or packaging. Conveying light materials.
General Manufacturing	Part ejection, fume removal, dust and liquid blow off from various types of parts, conveying away waste. Replaces fans in some cooling operations such as tempering glass.
Plastic:	Dust and scrap blow off. Cool mouldings after extrusion, then blow off and dry prior to forming.
Chemicals:	Blow off of chemicals or water prior to labeling or packaging.
Printing:	Cooling to set some inks, scrap blow off.
Pharmaceutical:	Remove liquid prior to labelling or packaging waste removal of solid materials. Extract unfilled capsules by vacuum as they pass on a conveyor.

Models of Fixed Air Amplifiers

Model	Size (Internal Diameter)	Amplification Ratio	Material	Air Consumption at 79.7 PSI
Airmasters10	10 mm	12:1	Zinc	6.22
Airmasters20	20 mm	22:1	Zinc	9.33
Airmasters40	40 mm	30:1	Zinc	19.9
Airmasters75	75 mm	15:1	Zinc	39.83
Airmasters125	125 mm	16:1	Zinc	189.81

(See below for technical details of each model separately)

AIR AMPLIFIER AIRMASTERS10

AIR AMPLIFIERS 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 use the "coanda effect" which entrains a large amount of surrounding air using only a small amount of compressed air. The effect of the AIR AMPLIFIERS is an amplification of up to 30 times the airflow or more depending on the size of the AIR AMPLIFIERS, 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 AMPLIFIERS may be ducted to address all kinds of applications from bringing in fresh air into an area. Be aware - If doesn't have "Made in Italy" cast into the body then it is not an original Airmasters product with the most advanced technology and performance!



Air consumption at 5.5 Bar

10 Nm 3/h

Air flow at outlet

120 Nm 3/h

Air Amplification

12:1

Sound level at 5 Bar

64dB(A)

Material

Zinc

Shims

Stainless Steel

Longer life in difficult environments than competitive models

Yes

Internal diameter

10 mm

Connection type

Female 1/8"

Blowing pattern

Concentrated

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

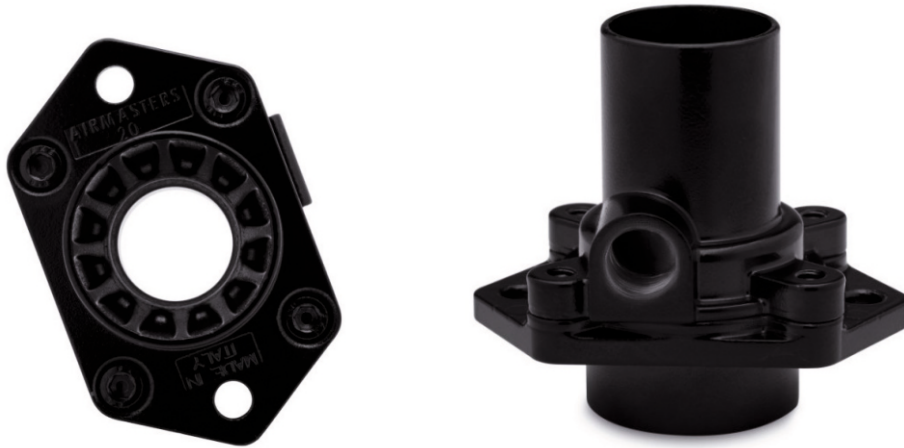
Meet the EU machine directives

Yes

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AIR AMPLIFIER AIRMASTERS20

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Air consumption at 5.5 Bar

15 Nm³/h

Air flow at outlet

322 Nm³/h

Air Amplification

22:1

Sound level at 5 Bar

64dB(A)

Material

Zinc

Shims

Stainless Steel

Longer life in difficult environments than competitive models

Yes

Internal diameter

20 mm

Connection type

Female 1/4" BSP

Blowing pattern

Concentrated

Air velocity at outlet

130 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

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AIR AMPLIFIER AIRMASTERS40

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Air consumption at 5.5 Bar

32 Nm³/h

Air flow at outlet

968 Nm³/h

Air Amplification

30:1

Sound level at 5 Bar

84 dB(A)

Material

Zinc

Shims

Stainless Steel

Longer life in difficult environments than competitive models

Si

Internal diameter

40 mm

Connection type

Female 3/8" BSP

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

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Air consumption at 5.5 Bar

64 Nm³/h

Air flow at outlet

968 Nm³/h

Air Amplification

15:1

Sound level at 5 Bar

89 dB(A)

Material

Zinc

Shims

Stainless Steel

Longer life in difficult environments than competitive models

Yes

Internal diameter

75 mm

Connection type

Female 1/2"

Blowing pattern

Wide

Air velocity at outlet

34 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

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AIR AMPLIFIER AIRMASTERS125

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Air consumption at 5.5 Bar	305 Nm ³ /h
Air flow at outlet	4890 Nm ³ /h
Air Amplification	16:1
Sound level at 5 Bar	92 dB(A)
Material	Zinc
Shims	Stainless Steel
Longer life in difficult environments than competitive models	Yes
Internal diameter	125 mm
Connection type	Female 3/4"
Blowing pattern	Wide
Air velocity at outlet	44 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

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