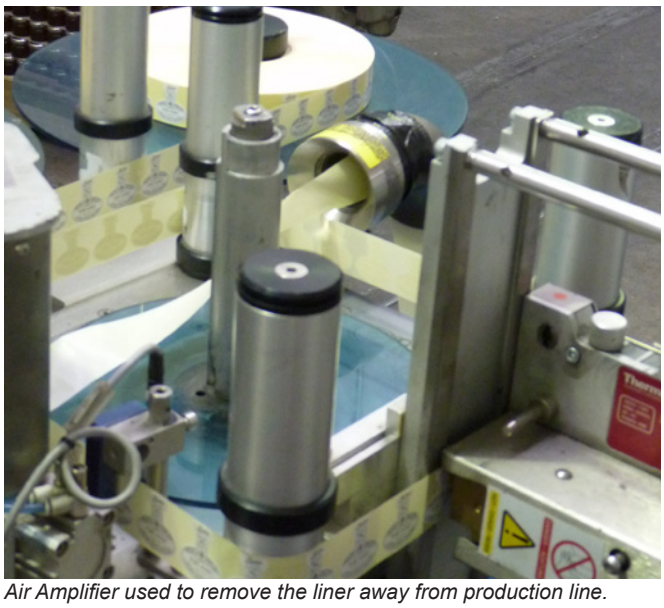
Energy Saving
Air Amplifier

Meech Energy Saving Air Amplifiers provide large airflows whilst consuming a minimal volume of compressed air. Available in 6 sizes, with outlets ranging from 9 to 100mm Air Amplifiers are a versatile and energy efficient way of utilising compressed air.

Features and Benefits

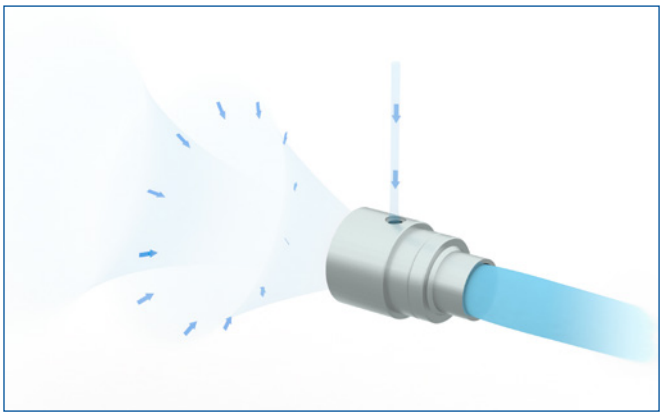
- Energy Saving – Air Amplifiers can cut compressed air demand by up to 70% and reduce running costs.
- Noise Reduction – Up to 30 dBA noise reduction compared to an open pipe.
- Innovative design – offers Air Amplification at a ratio of between 4 and 25:1.
- No moving parts – Virtually no maintenance.
- Easy to install – Standard fitting will connect to most existing air supplies.
- Reduce demand on Compressor – Air Amplifiers will reduce compressed air usage.
- Adjustable – Allows for application specific set up.
- Available in Aluminium and Stainless Steel – can be used in most environments.
- Versatile – 6 different sizes makes them suitable for a wide variety of applications.
- Excellent performance - Thrust levels in excess of 450 grams, whilst air consumption is only 26cfm (736l/min)



Air Amplifier used to remove the liner away from production line.

How they work

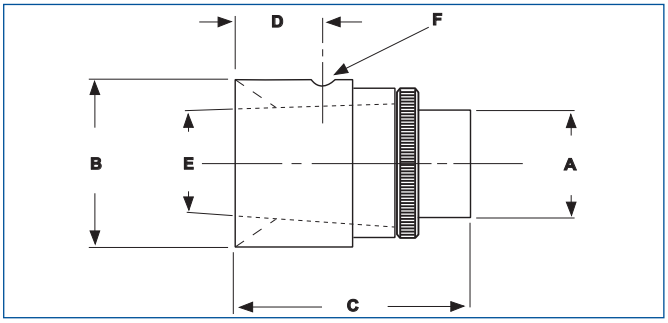
A tiny amount of compressed air is released through an adjustable circular slot inside the Air Amplifier. This creates a 'tube of air' that travels on the inside of the Amplifier towards the front. The air movement creates areas of low pressure which entrains ambient air at ratios of between 4 and 25:1 (model dependent).



Applications

- **Product Redirection**
  The wide spread of air exiting the Air Amplifier makes them ideal for moving products or components along a conveyor or production line.
- **Blowing and Sucking**
  The unique design allows an Air Amplifier to suck and blow air. This means they can be used to either blow particles away or vacuum material up.
- **Product Drying**
  The high velocity air flow means Air Amplifiers can be used to dry products or components.
- **Product Cooling**
  The high velocity air flow means Air Amplifiers can be used to cool products or components.
- **Product Ejection**
  When used in conjunction with a Solenoid Valve Air Amplifiers can be used to blow 'reject' products or components from production line.

Dimensions



	A15004	A15005	A15008/ A10008	A15006	A15015/ A10015	A15030/ A10030
A	9	18	32	37	51	100
B	14	29	50	60	76	127
C	24	44	73	90	83	128
D	7	13	26	30	27	38
E	6	12	20	25	40	74
F	M5 x 6mm	M5 x 6mm	¼“ BSP	¼“ BSP	⅜“ BSP	½“ BSP

Energy Saving Example - Air Amplifier

Company C uses 4 x 8mm ID open air pipes running at 80psi (5.4 Bar) to blow swarf from a component as it travels along a production line. The open pipes run constantly for 6 hours a day, 5 days a week and 48 weeks a year. Company C has electricity costs of 8p per kW/hr.

The air consumption of 1 x open 8mm pipe is 75cfm (2,124 l/min) making a total air consumption of 225cfm (6,371 l/min) at 80psi (5.4 Bar).

By replacing the open pipes with 4 x Meech Air Amplifiers (A15015) the company can significantly reduce the air consumption and save money. The Air Amplifiers will also improve cleaning results.

4 x Meech Energy Saving Air Amplifiers use 25 cfm each at 80 psi (5.4 Bar), making a total air consumption of 100cfm (2,832 l/min). The added air spread will also provide an improved cleaning performance.

The table below highlights the saving that can be achieved by replacing the 4 x open compressed air pipes with 4 x Air Amplifiers

Running Cost Comparison

Duration	1 x 12mm Air Amp (£)	4 x 12mm Air Amp (£)	1 x 8mm open pipe (£)	4 x 8mm open pipe (£)
Per Day	2.34	9.36	4.50	18.00
Per Week	14.04	56.16	27.00	108.00
Per Year	673.92	2,695	1,296	5,184

Technical Information

Product Code	Product	Air Amplification	Thread Type	Total Weight (grams)	Factory setting @ 80psi (5.4 bar)
A15004	9mm Aluminium Air Amplifier	4:1	M5 x 6mm	5	10cfm (203 l/min)
A15005	18mm Aluminium Air Amplifier	4:1	M5 x 6mm	35	13cfm (368 l/min)
A15008/A10008	32mm Aluminium / Stainless Steel Air Amplifier	12:1	¼” BSPP	176(A) / 517(SS)	15cfm (425 l/min)
A15006	37mm Aluminium Air Amplifier	12:1	G1 x 6mm	312	23cfm (651 l/min)
A15015/A10015	51mm Aluminium / Stainless Steel Air Amplifier	20:1	⅜” BSPP	372(A) / 1,081(SS)	25cfm (708 l/min)
A15030/A10030	100mm Aluminium / Stainless Steel Air Amplifier	25:1	½” BSPP	1,253(A) / 3,700(SS)	30cfm (850 l/min)

Air Consumption and Noise Comparison

Inlet Air Pressure	Air Consumption										Sound Level*				
	cfm					l/min					dBA				
psi	20	40	60	80	100	20	40	60	80	100	20	40	60	80	100
Bar	1.4	2.7	4.1	5.4	6.8	1.4	2.7	4.1	5.4	6.8	1.4	2.7	4.1	5.4	6.8
A15004	3	5	8	10	11	85	142	227	283	311	73	82	86	88	90
A15005	4	8	10	13	15	113	227	283	368	425	70	75	82	83	86
A15008/A10008	8	11	13	15	17	227	311	368	425	481	59	73	76	79	83
A15006	9	14	19	23	27	255	396	538	651	765	66	77	82	83	86
A15015/A10015	13	18	22	25	28	368	510	623	708	793	59	69	75	78	83
A15030/A10030	15	21	26	30	34	425	595	736	850	963	59	68	73	75	78
6mm Pipe	11	17	27	34	40	311	481	765	963	1133	70	80	87	90	95
8mm Pipe	26	40	60	75	82	736	1133	1699	2124	2322	77	88	95	97	98

* Sound level taken 1 meter from source
Measured at factory setting