

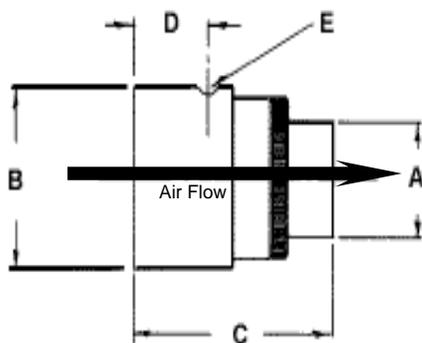


## Air Amplifier Installation and Maintenance

### Compressed Air Supply Line Sizes:

To obtain maximum performance from the Arizona Vortex products, measurements of pressure (psig) and volume (scfm) of air must be obtained. Pressure drops in the compressed air lines should be held at a minimum. Quick connects can “starve” the Air Amplifiers by causing excessive line pressure drops. Do not use plastic tubing. The chart below is suggested lines sizes for pipes and hoses. A 5-micron air filter part # 90000 used in close proximity to the air amplifier will separate 99% of the foreign matter from the air supply, allowing virtually maintenance free operation. The Oil Coalescing filter part # 90020 can be used along with the air filter. Pipe thread sealant or tape must be carefully applied to avoid clogging product orifices.

| Line Sizes<br>for Runs<br>Up To: | 0-25 Ft<br>(7.6m) |      | 25- 50 Ft<br>(7.6 - 15m) |      | 50 - 100 Ft<br>(15 - 31m) |      |
|----------------------------------|-------------------|------|--------------------------|------|---------------------------|------|
|                                  | Pipe              | Hose | Pipe                     | Hose | pipe                      | hose |
|                                  | 1/4”              | 3/8” | 3/8”                     | 1/2” | 1/2”                      | 5/8” |



| Model          | Amplifier Dimensions |                 |                 |                |         | Throat<br>Dia. |
|----------------|----------------------|-----------------|-----------------|----------------|---------|----------------|
|                | A                    | B               | C               | D              | E       |                |
| 55008<br>50008 | 1.250"<br>32 mm      | 2.00"<br>50 mm  | 2.625"<br>67 mm | 1.02"<br>26 mm | 1/4 NPT | 0.80"<br>20 mm |
| 55015<br>50015 | 2.00"<br>50 mm       | 3.00"<br>76 mm  | 3.25"<br>83 mm  | 1.06"<br>27 mm | 3/8 NPT | 1.50"<br>38 mm |
| 55030          | 4.00"<br>100 mm      | 5.00"<br>125 mm | 5.00"<br>125 mm | 1.50"<br>38 mm | 1/2 NPT | 3.00"<br>76 mm |

### Using The Air Amplifier:

The Air Amplifier is typically mounted by using the compressed air pipe for support. Clamps can also be used to support the Air Amplifier. The Air Amplifier can be used for blow off by aiming part “A”, blast of air, at the target area. A hose can be attached to one or both ends of the Air Amplifier to exhaust dust, smoke, or fumes. To convey small parts; the Air Amplifier should be placed at the point of suction.

### Adjusting the Air Amplifier:

To increase vacuum, flow, and force; loosen the lock ring by turning counter clockwise. Adjust the inner sleeve by turning until the desired gap opening is achieved. Tighten the lock ring to hold the position.

| <i>Trouble-Shooting<br/>Common Issues if the Air Amplifier has<br/>poor performance</i> | <i>Action to Take:</i>   |
|---|--|
| <b>Incoming Air Pressure</b>  | Low pressure will cause poor performance. Take a measurement of pressure just before the Air Amplifier. Extended lengths of air hose can cause pressure drops and lower performance.   |
| <b>Performance</b>  | The Air Amplifier may become clogged with contaminants. If this happens simply disassemble and clean the parts. The Air Amplifier is made up of 3 parts: an outer sleeve, inner sleeve and a lock ring. Check all parts for dirt or oil and clean. Lubricate “O” ring for ease of future adjusting and re-assemble the Air Amplifier (Silicone based products should not be used in paint environments). |
| <b>Build up at the Throat</b>   | Occasionally, build up will occur at the throat of the Air Amplifier as a result of vapors in the air. Clean the throat with a clean rag while a small amount of air is moving through the Air Amplifier to prevent contaminants from being pushed back.   |