

MIDGET AIR-DUCTORS

To Entrain Air for Delivery at 1 psig

MODEL: 4221 - AD

Revision: 0

BULLETIN
4221, 4231



34ADC MIDGET AIR-DUCTOR

DESCRIPTION

Midget Air-Ductors are designed to supply combustion air up to 16 psi when supplied with a small quantity of high pressure air.

Compressed air (above 30 psig) passing through the calibrated metering orifice entrains atmospheric air and delivers the total at some pressure to a gas-air mixer.

The selection table shows the approximate volumes of low

pressure air (1 psig) which the various Midget Air-Ductors will deliver. When operating at capacities shown and 1 psig delivery pressure, about 25-35% of total air delivered will be high pressure air (measured on a free basis). At lower delivery pressures, the percentage of high pressure air will be less than indicated above.

Outlet pressures higher than 16 psi may be obtained with greater high pressure air flows. Increase compressed air flow 50% for 2 psig outlet pressure and 70% for 3 psig.

SELECTION TABLE

Catalog Number	Outlet Pipe Size	Total Air Capacity @ 1 psig	Max. CFM Hi-Press. Air	Suggested Hi-Pressure Air Orifice Size For Various Air Gauge Pressures - psig						
				30	50	70	80	90	100	125
12 AD	1/4"	90-180	1.1	58	65	68	70	71	72	73
23 AD	3/8"	180-360	2.1	53	56	59	61	63	65	67
34 AD	1/2"	360-750	4.5	45	51	53	54	55	56	58
46 AD	3/4"	750-1000	5.2	43	49	52	53	54	55	56

CAUTION: Operation of combustion equipment can be hazardous resulting in bodily injury or equipment damage. Each burner should be supervised by a combustion safeguard and only qualified personnel should install, make system adjustments and perform any required service.



pyronics
A Selas Heat Technology Brand

11012 Aurora Hudson Road
Streetsboro, OH 44241
Email: sales@selas.com

Toll Free: 800-883-9218
Main: 216-662-8800
Fax: 216-663-8954

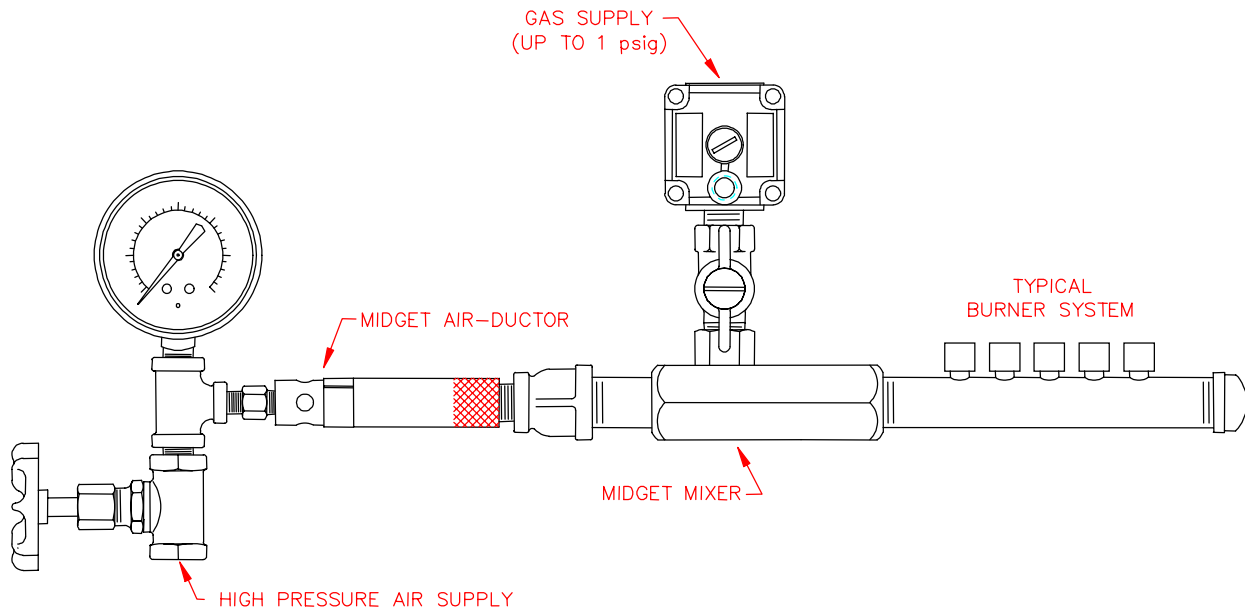
NOTICE: PYRONICS practices a policy of continuous improvement in the design of its products. It reserves the right to change the specifications at any time without prior notice.

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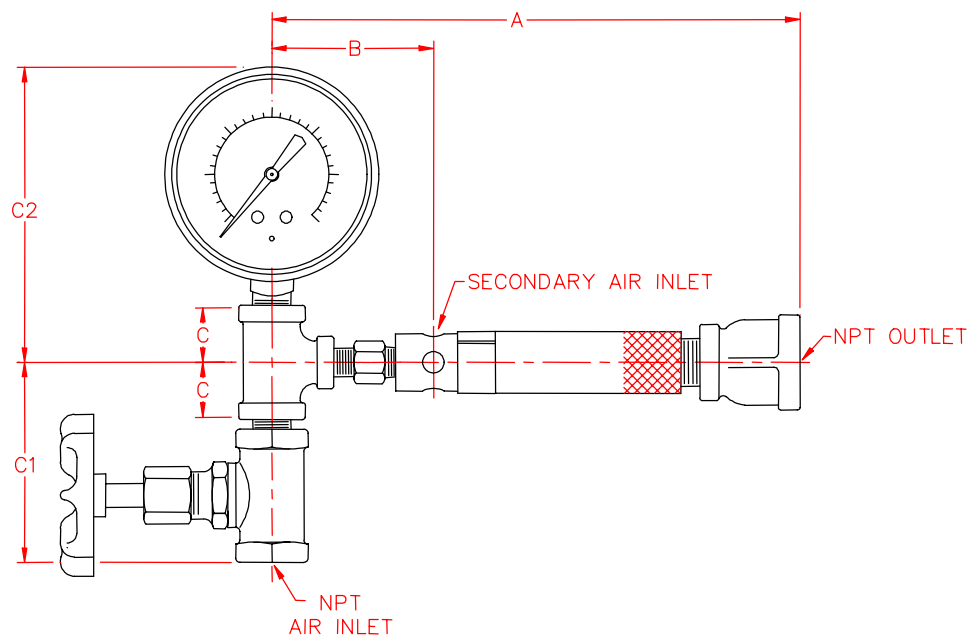
TYPICAL INSTALLATION



INSTALLATION SUGGESTIONS

1. Midget Air-Ductors should be connected directly to the mixer. Do not place any restrictions or valves between the air-ducter and mixer.
2. Air-ducter outlet piping should be as short as possible. A straight connection (no elbows) is desirable.
3. Compressed air line may be pipe or hose. All high pressure joints should be tight to prevent leaks.
4. Open air shutter wide for maximum air entrainment.
5. Open needle valve for capacity desired. Total air flow may be easily controlled by the needle valve.

DIMENSIONS - "AD" and "ADC" SERIES



MIDGET AIR-DUCTORS

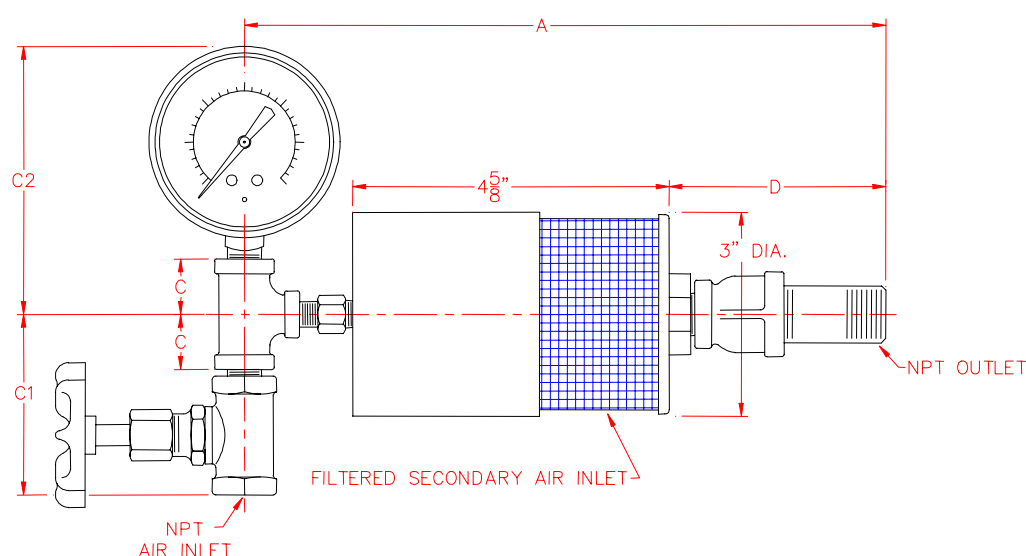
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DIMENSIONS - "AD" and "ADC" SERIES

CATALOG NUMBERS		Outlet Pipe Size NPT	Inlet Pipe Size NPT	A	B	C	C1	C2	Approximate Weight With NV & Gauge
With NV & Gauge	Without NV & Gauge								Lbs.
12ADC	12AD	1/4	1/4	5-5/8	2-1/8	3/4	2-5/8	3-7/8	1.2
23ADC	23AD	3/8	1/4	5-5/8	2-1/8	3/4	2-5/8	3-7/8	1.3
34ADC	34AD	1/2	1/4	7	2-1/8	3/4	2-5/8	3-7/8	1.5
46ADC	46AD	3/4	1/4	8-3/8	2-1/4	3/4	2-5/8	3-7/8	1.7

DIMENSIONS -- "AD-F" and "ADC-F" SERIES



CATALOG NUMBERS		Outlet Pipe Size NPT	Inlet Pipe Size NPT	A	C	C1	C2	D	Approximate Weight With NV & Gauge
With NV & Gauge	Without NV & Gauge								Lbs.
12ADC-F	12AD-F	1/4	1/4	8-3/4	13/16	2-5/8	4	2-1/2	2.0
23ADC-F	23AD-F	3/8	1/4	8-3/4	13/16	2-5/8	4	2-1/2	2.2
34ADC-F	34AD-F	1/2	1/4	9-1/2	13/16	2-5/8	4	3-1/4	2.4
46ADC-F	46AD-F	3/4	1/4	8-3/4	13/16	2-5/8	4	2-3/8	2.3

ORDERING INFORMATION

1. Select number, size and catalog number of Midget Air-Ductors required.
2. The "AD" series include the mixer, air orifice and outlet coupling only. Add letter "C" to catalog number for complete assembly including needle valve and pressure gauge.
3. Specify maximum air pressure and/or gauge range.
4. Specify air capacity or orifice drill size.
5. Include complete shipping instructions.

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