MIDGET AIR-DUCTORS

To Entrain Air for Delivery at 1 psig

MODEL: 4221 - AD

Revision:



#34ADC MIDGET AIR-DUCTOR

DESCRIPTION

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

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 osi 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	Max. CFM Hi-Press.	Suggested Hi-Pressure Air Orifice Size For Various Air Gauge Pressures - psig							
Nullibel	Fipe Size	@ 1 psig	Air	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



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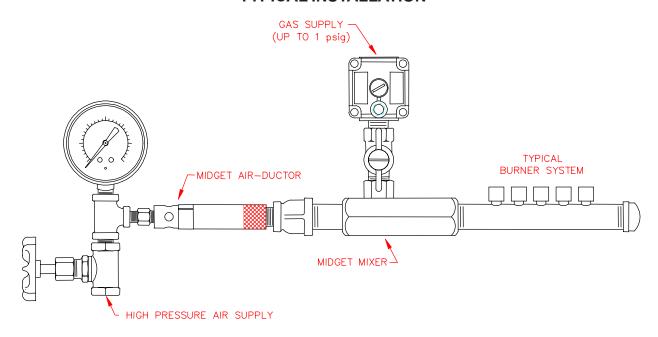
policy of continuous improvement in the design of its products. It reserves the right to change the specifcations at any time without prior notice.

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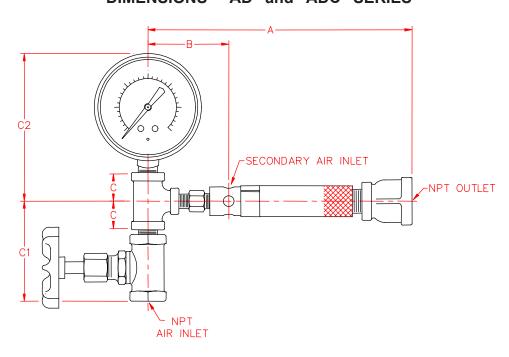
TYPICAL INSTALLATION



INSTALLATION SUGGESTIONS

- Midget Air-Ductors should be connected directly to the mixer. Do not place any restrictions or valves between the air-ductor and mixer.
- 2. Air-ductor 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

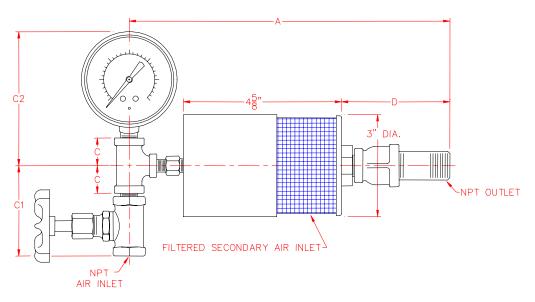
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DIMENSIONS - "AD" and "ADC" SERIES

	TALOG MBERS Without NV	Outlet Pipe Size	Inlet Pipe Size	Α	В	С	C1	C2	Approximate Weight With NV & Gauge	
& Gauge	& Gauge	NPT	NPT						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



	ALOG //BERS Without NV & Gauge	Outlet Pipe Size NPT	Inlet Pipe Size NPT	Α	С	C1	C2	D	Approximate Weight With 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
- 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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