



BURGESS-MANNING

Burgess-Manning, Inc., Subsidiary of Nitram Energy, Inc.

227 Thorn Avenue, Orchard Park, NY 14127

Phone: (716) 662-6540 Fax: (716) 662-6548 Website: www.burgess-manning.com

Silencer Sizing for Rotary Positive Blower Applications

SIZING FORMULA

$$\text{NOZZLE FLOW AREA REQUIRED (FT}^2\text{)} = \frac{\text{APPLICATION FLOW (ACFM)}}{\text{VELOCITY (FPM)}}$$

Recommended Velocity = 5,500 - 6,000 FPM

SILENCER SIZE SELECTION TABLE

NOMINAL SIZE (inches)	NOZZLE FLOW AREA (FT ²)
1/2"	0.0021
3/4"	0.0037
1"	0.0060
1-1/4"	0.0104
1-1/2"	0.0143
2"	0.0233
2-1/2"	0.0333
3"	0.0513
3-1/2"	0.069
4"	0.103
5"	0.156
6"	0.225
8"	0.381
10"	0.599
12"	0.850
14"	1.028
16"	1.350

NOMINAL SIZE (inches)	NOZZLE FLOW AREA (FT ²)
18"	1.715
20"	2.123
22"	2.575
24"	3.071
26"	3.581
28"	4.162
30"	4.787
32"	5.455
34"	6.167
36"	6.922
38"	7.721
40"	8.564
42"	9.450
44"	10.380
46"	11.354
48"	12.371



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Silencer Selection for Rotary Positive Blower

Atmosphere or vacuum intake and pressure discharge. ASME design and construction are available options						
Intake Silencer				Discharge Silencer (0 to 15 psig)		
Blower Gear Dia. (inches)	Blower Transition Speed (rpm)	Below Transition Speed	Above Transition Speed	Blower Transition Speed (rpm)	Below Transition Speed	Above Transition Speed
2	6302	↑ ↓ BMBCI, BMBAI, BMBAI-LH, BEOI	↑ ↓ CA, BMSI, BMBJ, BEOAI, BMBG-LH	5157	↑ ↓ BMBC, BMBA, BEO, BPDR	↑ ↓ CA, BMSS, BMBG, BEOA, BPDA
2 1/2	5042			4125		
3	4202			3438		
3 1/2	3601			2947		
4	3151			2578		
5	2521			2063		
6	2101			1719		
7	1801			1473		
8	1576			1289		
10	1261			1031		
12	1050			859		
14	900			737		
16	788			645		
18	700			573		
20	630			516		
22	573			469		
24	525			430		
30	420			344		
36	350	286				

Notes: - All items are Standard Product
 - Custom units are available upon request