

# GRAVITY VENTILATORS

Low Profile - Formed Aluminum

## STANDARD CONSTRUCTION

### MATERIAL

Hood is of .050" aluminum and throat and curb cap are of .080" thick extruded aluminum alloy 6063-T5. Internal support bracing is 1" x 2" x 1" extruded aluminum channel.

Additional support bracing is added when either hood dimension exceeds 47". Hoods built in sections are of .063" aluminum and include adequate additional support bracing.

### ASSEMBLY

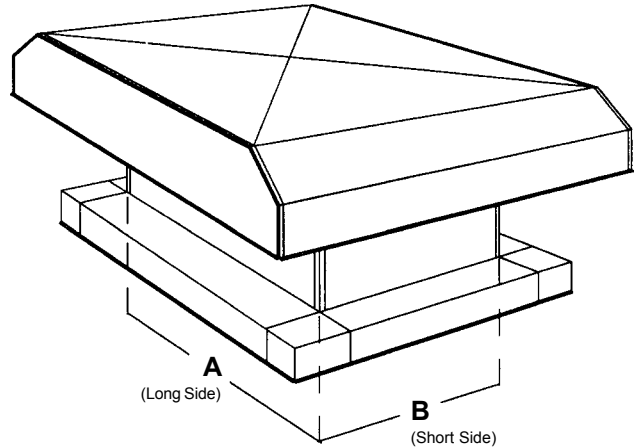
All hoods are mechanically fastened to the throat. Bracing is solid welded throughout. Curb cap joints are solid seal welded to prevent leakage.

### SCREEN

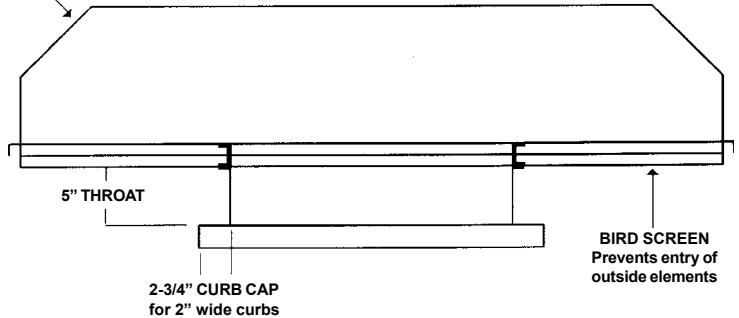
1/2" bird screen mechanically fastened to underside of hood.

### FINISH

Mill finish.



CHAMFERED ROOF ENDS  
(on short (B) dimension)  
Reduces Turbulence,  
Decreases Pressure Drop and  
Enhances Airflow



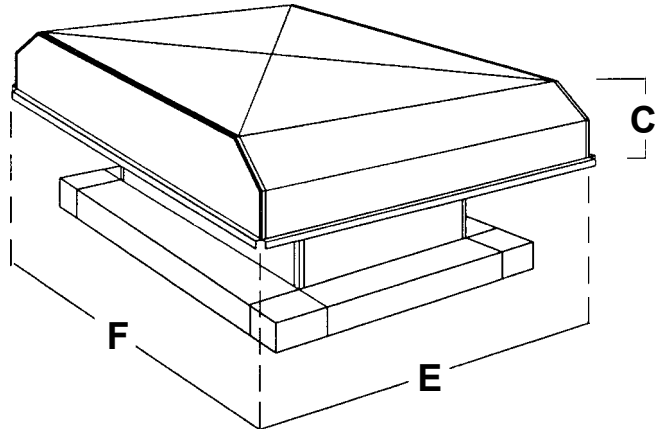
FREE AREA AND MODELS	
100% (1:1) Exhaust <b>EAV</b>	200% (2:1) Intake <b>IAV</b>

Qty.	Model	'A'	'B'	Options / Accessories	Tag

PROJECT: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 ARCHITECT: \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_  
 PO NUMBER: \_\_\_\_\_  
 DATE: \_\_\_\_\_

# HOOD DIMENSIONS

- Find dimensions A x B in selected Free Area sizing chart to determine overall hood height and width.
- Standard throat height is 5" (other heights are available). To determine overall ventilator height add 'C' dimension and throat height (5").
- Standard curb cap is 2-3/4" (other sizes are available).
- Sizes with "\*" will ship in multiple sections and require field assembly.



A Dimension (LONG throat width) Square End

		12	14	16	18	20	24	30	36	42	48	54	60	66	72
	C	7	7	7	7	7	7	8	8	8	8	9	9	9	10
12	E	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	F	20	22	25	29	32	38	48	57	67	76	86	95	105	114
	C	7	7	7	7	7	7	8	8	8	8	9	9	9	10
14	E	22	22	22	22	22	22	22	22	22	22	22	22	22	22
	F	22	25	29	32	38	48	57	67	76	86	95	105	115	
	C	7	7	7	7	7	7	8	8	8	8	9	9	9	10
16	E	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	F	26	29	32	38	48	58	67	77	86	96	106	115		
	C	8	8	8	8	8	8	9	9	9	10	10	10	11	
18	E	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	F	29	32	39	48	58	68	77	87	96	106	116			
	C	8	8	8	8	8	8	9	9	9	10	10	10	11	
20	E	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	F	30	36	45	54	63	72	81	90	99	108				
	C	11	11	11	12	12	12	13	13	14					
24	E	36	36	36	36	36	36	36	36	36	36	36			
	F	36	45	54	63	72	81	90	99	108					
	C	13	13	13	14	14	15	15	16						
30	E	45	45	45	45	45	45	45	45	45	45				
	F	45	54	63	72	81	90	99	108						
	C	15	15	16	16	17	17	18							
36	E	54	54	54	54	54	54	54	54	54					
	F	54	63	72	81	90	99	108							
	C	15	15	16	16	17	17	18							
42	E	60	60	60	60	60	60	60	60						
	F	66	76	85	95	104	113								
	C	17	17	18	19	20									
48	E	72	72	72	72	72	72								
	F	72	81	90	99	108									
	C	21	21	21	21										
54	E	81	81	81	81										
	F	81	90	99	108										
	C	21	21	21											
60	E	90	90	90											
	F	90	99	108											
	C	21	21												
66	E	93	93												
	F	106	115												
	C	21													
72	E	93													
	F	126													

B Dimension (SHORT throat width) Chamfered End

A Dimension (LONG throat width) Square End

		12	14	16	18	20	24	30	36	42	48	54	60	66	72
	C	8	8	8	8	8	9	9	9	10	10	11	11	12	13
12	E	23	23	23	23	23	23	23	23	23	23	23	23	23	23
	F	23	27	30	34	38	46	57	69	80	91	103	114	126	137
	C	8	8	8	8	8	9	9	9	10	10	11	11	12	13
14	E	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	F	26	30	34	38	45	57	68	79	90	102	113	124	136	
	C	8	8	8	8	8	9	9	9	10	10	11	11	12	13
16	E	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	F	30	34	37	45	56	67	78	90	101	112	123	134		
	C	8	8	8	8	8	9	9	9	10	10	11	11	12	13
18	E	34	34	34	34	34	34	34	34	34	34	34	34	34	34
	F	33	37	44	56	67	78	89	100	111	122	133			
	C	8	8	8	8	8	9	9	9	10	10	11	11	12	13
20	E	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	F	36	43	54	65	76	87	98	108	119	130				
	C	11	11	12	12	13	13	14	14	15	16				
24	E	43	43	43	43	43	43	43	43	43	43	43	43	43	43
	F	44	54	65	76	87	98	109	120	131					
	C	14	14	15	16	16	17	18	19						
30	E	54	54	54	54	54	54	54	54	54	54	54	54	54	54
	F	54	65	76	87	98	108	119	130						
	C	17	17	18	19	20	21	22							
36	E	60	60	60	60	60	60	60	60	60	60	60	60	60	60
	F	60	70	82	94	105	117	129	140						
	C	19	20	21	22	23	24								
42	E	76	76	76	76	76	76	76	76	76	76	76	76	76	76
	F	76	86	97	108	119	129								
	C	22	23	24	25	27									
48	E	87	87	87	87	87	87	87	87	87	87	87	87	87	87
	F	86	97	108	118	129									
	C	27	27	27	27	27									
54	E	93	93	93	93	93	93	93	93	93	93	93	93	93	93
	F	93	102	113	125	136									
	C	27	27	27	27										
60	E	99	99	99	99	99	99	99	99	99	99	99	99	99	99
	F	99	108	119	129	138	151								
	C	27	27	27	27	27	27	27	27	27	27	27	27	27	27
66	E	93	93	93	93	93	93	93	93	93	93	93	93	93	93
	F	106	115	126	138	151									
	C	27	27	27	27	27	27	27	27	27	27	27	27	27	27
72	E	93	93	93	93	93	93	93	93	93	93	93	93	93	93
	F	126	140	151	162	173	184	195	206	217	228	239	250	261	272

B Dimension (SHORT throat width) Chamfered End

## STATIC PRESSURE LOSS (in. wg.)

Throat Velocity	100%	200%	
	EXHAUST	INTAKE	EXHAUST
<b>300 FPM</b>	.012"	.018"	.008"
<b>400 FPM</b>	.021"	.031"	.013"
<b>500 FPM</b>	.033"	.049"	.021"
<b>600 FPM</b>	.048"	.071"	.030"
<b>700 FPM</b>	.065"	.096"	.041"
<b>800 FPM</b>	.085"	.126"	.053"
<b>900 FPM</b>	.108"	.159"	.068"
<b>1000 FPM</b>	.133"	.196"	.084"
<b>1100 FPM</b>	.161"	.237"	.101"
<b>1200 FPM</b>	.192"	.282"	.120"

### FORMULAS

#### 1. Hood Velocity (fpm)

Throat Velocity (FPM)  $\div$  1 (100% Free Area)  
2 (200% Free Area)

#### 2. Throat Velocity (fpm)

Hood Velocity (FPM)  $\div$  1 (100% Free Area)  
2 (200% Free Area)

#### 3. Throat Size (Square Feet)

Air Flow (CFM)  $\div$  Throat Velocity (FPM)

#### 4. Throat Perimeter (Inches)

A + A + B + B

### SIZING RECOMMENDATIONS

1. On **INTAKE** Gravity Ventilators, the Hood Velocity should **NOT** exceed 600 fpm.
2. To size a 2" Curb using the standard gravity ventilator curb cap of 2-3/4", add **throat size + 4"** to allow for the curb cap distance from the throat with adequate installation allowance.

## **OPTIONS / ACCESSORIES**

### **SCREENS**

A wide variety of bird or insect screens are available in various gauges and mesh dimensions including a snow screen

### **MATERIAL**

Aluminum thickness in .063" or .081" on hood.

### **CURB CAP**

Standard is 2-3/4" for 2" curbs, although by specifying, curb cap is available in any size.

### **THROAT OPTIONS**

Standard exposed throat height of 5" can be extended to any selected height. Hoods (throat sizes up to 60" x 60") can be hinged to throat for swing open access from one side or split horizontally creating two sections for lift up access.

### **INSULATION/ANTI CONDENSATE**

Mastic coating is available on the underside of the hood, or insulation (1" or 2") can be installed in either the hood or the throat.

### **HEAVY CONSTRUCTION**

For high wind area applications, our high wind loading option assures your gravity ventilator will remain intact under wind conditions up to 125 miles per hour.

### **DAMPER MOUNT**

Dampers can be mounted horizontally in the throat or vertically around the inside perimeter of the hood.

### **FILTERS AND RACKS**

1" or 2" filters and racks, available in disposable or washable (Note: disposable available on specific sizes only.)

### **FINISHES**

A wide selection of finishes are available, including baked enamel, epoxy, and prime coat.