

GRAVITY VENTILATORS

Low Profile - Formed Steel

STANDARD CONSTRUCTION

MATERIAL

Hood, throat, and curb cap are of 18 gauge galvanized steel. All internal bracing consists of steel angle 1-1/4" x 1-1/4" x 1/8".

ASSEMBLY

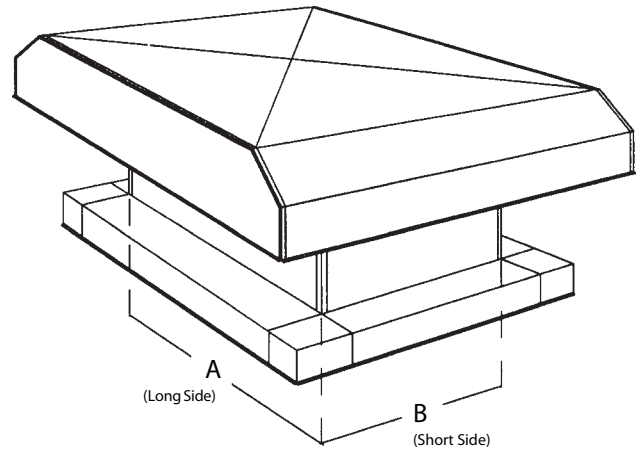
Hood is mechanically fastened to throat for ease in removal, All throat joints are seam welded and caulked. Bracing is solid welded throughout. Curb cap joints are solid seal welded to prevent leakage.

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

ROOF BRACED
to withstand 30lb. per sq. ft. snow load

10"
Full Throat

8"
EXPOSED
Throat

BIRD SCREEN
Prevents entry of
outside elements

2-3/4"
CURB CAP
for 2" wide curbs

WEATHER BAFFLE
Directs Cascading Water
away from curb.

FREE AREA AND MODELS

100% (1:1)	200% (2:1)
Exhaust	Intake
AESV	AISV

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



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PROJECT: _____
LOCATION: _____
ARCHITECT: _____
ENGINEER: _____
CONTRACTOR: _____
PO NUMBER: _____
DATE: _____

STATIC PRESSURE LOSS (in. wg.)

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

FORMULAS

1. Hood Velocity (fpm)

$$\text{Throat Velocity (FPM)} \div \begin{matrix} 1 & (100\% \text{ Free Area}) \\ 1.5 & (150\% \text{ Free Area}) \\ 2 & (200\% \text{ Free Area}) \end{matrix}$$

2. Throat Velocity (fpm)

$$\text{Hood Velocity (FPM)} \div \begin{matrix} 1 & (100\% \text{ Free Area}) \\ 1.5 & (150\% \text{ Free Area}) \\ 2 & (200\% \text{ Free Area}) \end{matrix}$$

3. Throat Size (Square Feet)

$$\text{Air Flow (CFM)} \div \text{Throat Velocity (FPM)}$$

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.



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HOOD DIMENSIONS

- Find dimensions A x B in selected Free Area sizing chart to determine overall hood height and width.
- Standard throat height is 8" (other heights are available). To determine overall ventilator height add 'C' dimension and throat height (8").
- Standard curb cap is 2-3/4" (other sizes are available).
- Sizes with black background will ship in multiple sections and require field assembly.

INTAKE

A Dimension (LONG throat width) Square End

		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	
	C	7	7	8	8	8	9	9	9	9	9	9	9	9	9	9	
12	E	26	30	40	47	47	60	60	79	87	83	90	96	102	108	114	
	F	25	26	29	29	35	30	35	30	30	34	35	35	35	36	36	
	C		9	9	10	11	11	11	12	12	12	12	12	12	12	12	
18	E		37	45	48	56	660	69	75	82	87	98	104	112	120	125	
	F		35	37	42	42	45	45	46	46	45	46	46	46	46	46	
	C			11	11	12	13	13	14	14	14	15	15	15	15	15	
24	E			46	57	60	65	66	74	82	90	97	105	112	120	128	
	F			46	46	51	54	60	60	60	60	60	60	60	60	60	
	C				13	14	14	15	16	16	16	17	17	17	17	17	
30	E				60	63	73	82	91	101	10	103	108	114	120	126	
	F				53	60	60	60	60	60	60	70	72	73	74	75	
	C					15	16	16	17	17	18	18	18	19	19	19	
36	E					75	77	77	86	94	97	104	110	117	120	130	
	F					60	66	76	76	76	81	82	71	85	88	87	
	C						17	17	18	18	19	19	20	20	20	21	
42	E						84	86	88	93	100	109	113	126	131	137	
	F						71	79	86	90	91	91	94	91	94	94	
	C							18	19	20	20	21	21	22	22	22	
48	E							91	98	104	110	118	130	144	154	163	
	F							85	88	91	92	91	94	91	91	91	
	C								20	20	21	22	22	23	23	23	
54	E								108	117	127	138	150	161	172	182	
	F								89	91	91	91	91	91	91	91	
	C									21	22	23	23	24	24	24	
60	E									130	140	153	166	178	146	154	
	F									91	92	91	91	91	118	118	
	C										23	23	24	25	25	26	
66	E										158	155	176	156	161	172	
	F										91	94	94	118	118	118	
	C											24	25	26	26	27	
72	E											144	153	162	175	187	
	F											117	118	118	118	118	
	C												26	26	27	28	
78	E												166	178	158	168	
	F												118	118	142	142	
	C													27	28	29	
84	E														168	169	171
	F														134	142	150
	C															29	30
90	E															181	193
	F															142	142
	C																33
96	E																192
	F																152

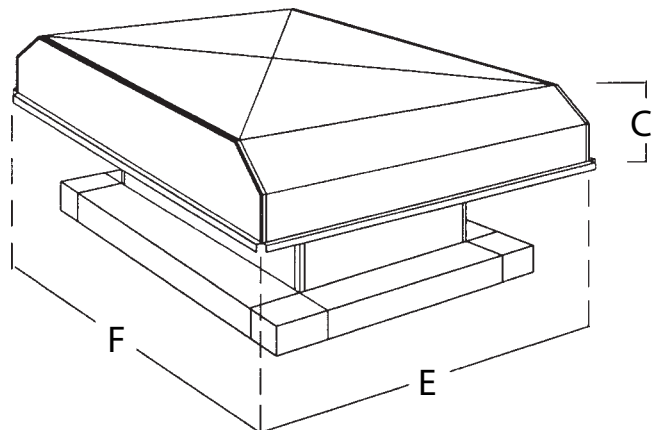
B Dimension (SHORT throat width) Chamfered End

EXHAUST

A Dimension (LONG throat width) Square End

		12	18	24	30	36	42	48	54	60	66	72	78	84	90	90
	C	7	7	8	8	8	9	9	9	9	9	9	9	9	9	9
12	E	25	30	40	45	53	60	60	70	77	83	90	96	102	108	114
	F	19	22	21	22	22	22	24	24	24	24	24	25	25	25	25
	C		9	9	10	11	11	11	12	12	12	12	12	12	12	12
18	E		35	39	48	55	60	71	79	87	85	94	100	106	112	119
	F		27	30	30	32	32	30	30	30	34	33	34	34	34	35
	C			11	11	12	13	13	14	14	14	15	15	15	15	15
24	E			44	50	60	60	72	78	85	91	97	104	110	116	120
	F			34	36	36	41	39	40	40	41	46	42	43	43	44
	C				13	14	14	15	16	16	16	17	17	17	17	17
30	E				48	60	65	74	84	91	94	104	108	114	120	120
	F				46	44	46	46	46	46	48	48	50	50	51	54
	C					15	16	16	17	17	18	18	18	19	19	19
36	E					60	71	77	75	83	90	98	106	113	120	128
	F					52	51	53	60	60	60	60	60	60	60	60
	C						17	17	18	19	19	19	20	20	20	21
42	E						70	78	86	95	104	113	122	120	127	133
	F						60	60	60	60	60	60	60	65	66	67
	C							18	19	20	20	21	21	21	22	22
48	E							88	88	91	102	109	116	120	120	136
	F							60	67	72	70	71	72	74	79	75
	C								20	21	22	22	23	23	23	24
54	E								89	96	104	111	118	120	132	139
	F								74	76	76	78	79	83	81	82
	C									21	22	22	23	24	24	25
60	E									98	106	113	120	126	134	133
	F									82	83	84	86	91	88	94
	C										23	23	24	25	25	26
66	E										103	111	122	129	136	146
	F										94	94	92	94	95	94
	C											24	25	26	26	27
72	E											120	135	140	154	164
	F												94	91	94	91
	C													26	27	28
78	E													144	154	165
	F														144	154
	C													92	92	92
	E														27	28
84	E															28
	F															29
	C															29
90	E															148
	F															118
	C															30
96	E															167
	F															118

B Dimension (SHORT throat width) Chamfered End



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OPTIONS / ACCESSORIES

SCREENS

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

MATERIAL

Various gauges of galvanized, galvaneal, or stainless steel on throat or hood or both.

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 8" (10" total) 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.

ACCESS PANELS

To provide a passageway to internal equipment, an access panel can be cut into the throat and lined with a protective vinyl edge seal.

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.

SECURITY BARS

Selections of bar diameters, frame styles, and spacing.

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.



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