

GRAVITY VENTILATOR

SGV

STANDARD CONSTRUCTION

Low Profile
Formed Steel

MATERIAL

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

ASSEMBLY

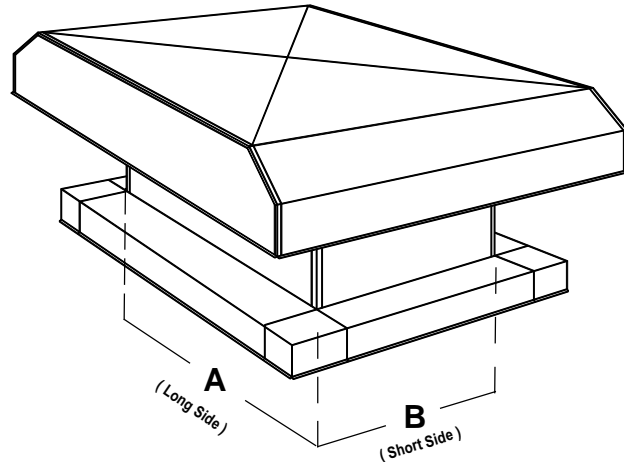
Hood is mechanically fastened to throat for ease in removal. All throat joints are seam welded and caulked. Bracing is solid welded through out. Curb cap joints are solid seal welded to prevent leakage.

SCREEN

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

FINISH

Mill finish.



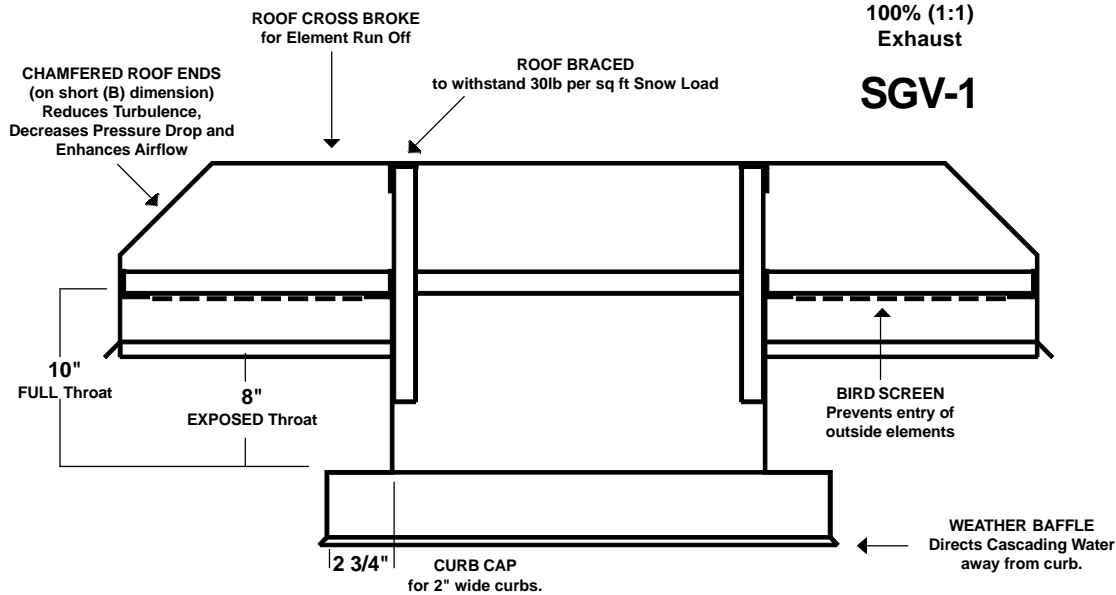
FREE AREA and MODELS

100% (1:1)
Exhaust

200% (2:1)
Intake

SGV-1

SGV-2



Model	'A' (throat width)	'B' (throat width)	Qty	Options / Accessories / Variations

PROJECT _____
 ARCH/ENGR _____
 REPRESENTATIVE _____

LOCATION _____
 CONTRACTOR _____
 DATE _____

PC00094(1) - Jan 2000

GRAVITY VENTILATORS

ID Louvers & Dampers

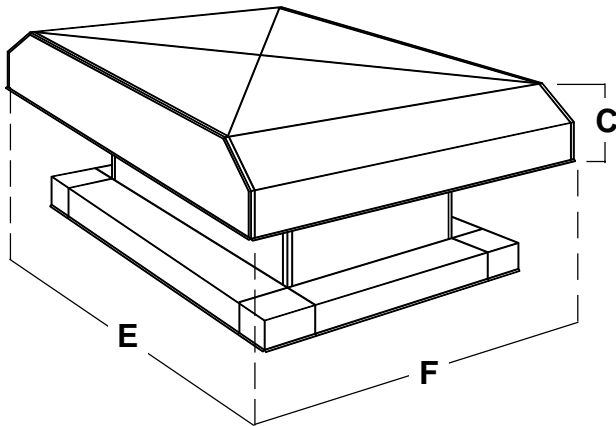
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SGV

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 dimensions in reverse 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"
B Dimension (SHORT throat width) Chamfered End	12"	C	4	4	4	4	5	5	5	5	5	5	6	6	6
	E	20	20	20	19	19	19	18	18	18	18	18	18	18	18
	F	20	23	27	28	31	37	44	53	61	70	79	87	96	105
	14"	C		5	5	5	5	5	5	6	6	6	6	6	7
	E		23	22	22	22	21	21	21	21	21	21	21	21	21
	F		23	25	28	31	35	44	53	61	70	79	87	96	105
	16"	C			5	5	6	6	6	6	6	6	6	7	7
	E			25	25	24	24	24	24	24	24	24	24	24	24
	F			25	28	29	35	44	53	61	70	79	87	96	105
	18"	C				6	6	6	6	7	7	7	7	7	8
	E					26	26	26	26	26	26	26	26	26	26
	F					27	29	35	44	53	61	70	79	87	96
	20"	C					7	7	7	7	7	7	8	8	8
	E						29	29	29	29	29	29	29	29	29
	F						29	35	44	53	61	70	79	87	96
	24"	C						8	8	8	9	9	10	10	11
	E							35	35	35	35	35	35	35	35
	F							35	44	53	61	70	79	87	96
	30"	C							9	10	10	11	11	11	12
	E								44	44	44	44	44	44	44
F								44	53	61	70	79	87	96	
36"	C								11	12	12	12	13	13	
E									52	52	52	52	52	52	
F									53	61	70	79	87	96	
42"	C									13	13	14	14	15	
E										58	58	58	58	58	
F										64	73	83	92	101	
48"	C										15	15	16	16	
E											70	70	70	70	
F											70	79	87	96	
54"	C											16	17	17	
E												78	78	78	
F												79	87	96	
60"	C												18	19	
E													87	87	
F													87	96	
66"	C													20	
E														93	
F														99	
72"	C														
E														22	
F														93	

100% (1:1)
Exhaust
NOTE: FRACTIONS ARE ROUNDED

		A Dimension (LONG throat width) Square End													
		12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"	66"	72"
B Dimension (SHORT throat width) Chamfered End	12"	C	5	5	5	5	6	6	6	6	6	7	7	7	7
	E	23	23	23	22	22	22	22	22	22	22	22	22	22	22
	F	23	27	31	33	37	44	53	64	74	85	96	106	117	127
	14"	C		6	6	6	6	6	6	7	7	7	7	7	8
	E			27	26	26	26	25	25	25	25	25	25	25	25
	F			27	30	33	37	43	53	64	74	85	96	106	117
	16"	C			8	8	9	9	9	9	9	9	10	10	10
	E				29	29	28	28	28	28	28	28	28	28	28
	F				30	33	36	43	53	64	74	85	96	106	117
	18"	C				9	9	9	9	10	10	10	10	10	11
	E					32	32	32	32	32	32	32	32	32	32
	F					32	37	43	53	64	74	85	96	106	117
	20"	C					10	10	10	10	10	10	11	11	11
	E						35	35	35	35	35	35	35	35	35
	F						36	43	53	64	74	85	96	106	117
	24"	C						11	11	11	12	12	13	13	14
	E							42	42	42	42	42	42	42	42
	F							43	53	64	74	85	96	106	117
	30"	C							12	13	13	14	14	14	15
	E								53	53	53	43	53	53	53
F								53	64	74	85	96	106	117	
36"	C								14	15	15	15	16	16	
E									58	58	58	58	58	58	
F									70	81	93	104	116	127	
42"	C									16	16	17	17	18	
E										74	74	74	74	74	
F										74	85	96	106	117	
48"	C										18	18	19	19	
E											85	85	85	85	
F											85	96	106	117	
54"	C											19	20	21	
E												93	93	93	
F												98	108	119	
60"	C												21	22	
E													93	93	
F													120	132	
66"	C													23	
E														93	
F														146	
72"	C														
E														27	
F														120	

200% (2:1)
Intake
NOTE: "C" DIMENSION IS PLUS .25
NOTE: FRACTIONS ARE ROUNDED

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STATIC PRESSURE LOSS (inches w.g.)

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)

Throat Velocity (FPM) \cdot 1 (100% Free Area)
 1.5 (150% Free Area)
 2 (200% Free Area)

2) THROAT VELOCITY (fpm)

Hood Velocity (FPM) \times 1 (100% Free Area)
 1.5 (150% Free Area)
 2 (200% Free Area)

3) THROAT SIZE (square feet)

Air Flow (CFM) \cdot 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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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 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.

ROOF LINERS

Hoods can be fabricated with a double layer of metal with air lock or insulation.

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") is available in the hood or 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 mile 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 including Baked Enamel, Epoxy, or Prime Coat.