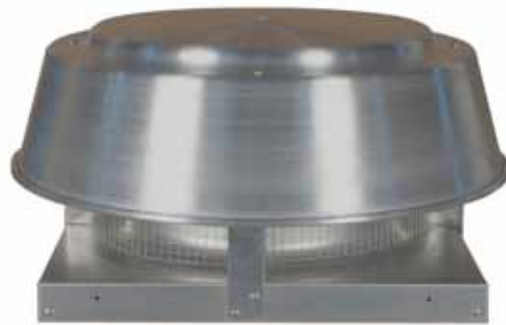
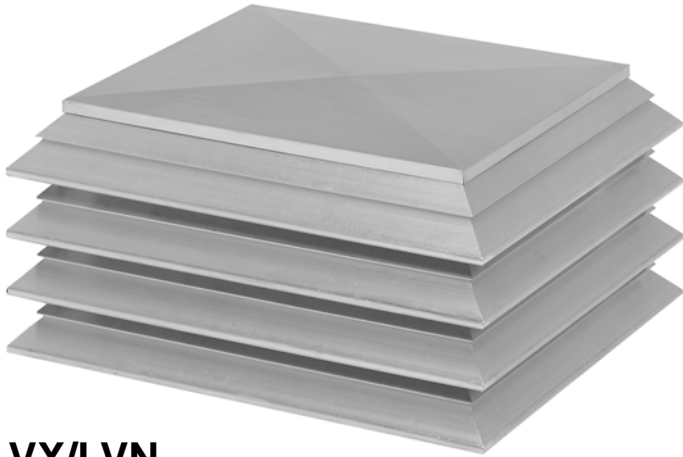


Gravity Ventilators & Rooftop Equipment Enclosures



Type LVN/LVX – Louverline Penthouses & Ventilators
Type TEV/TIV – Trimline Hooded Ventilators
Type ARVE – Spun Aluminum Ventilators

Gravity Ventilator Models



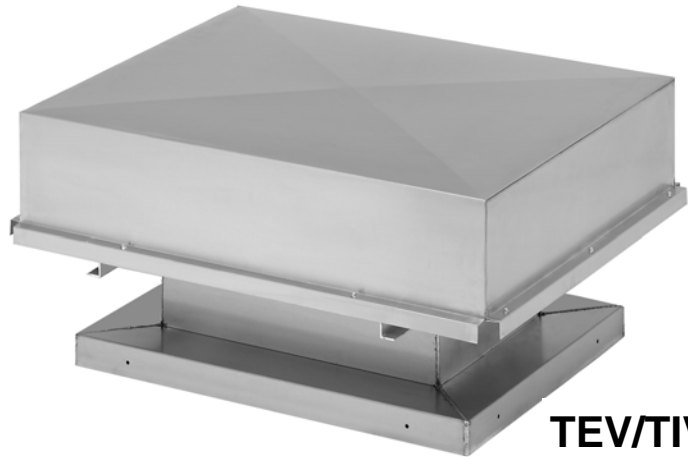
LVX/LVN
Pages 3 - 6

Louverline Models LVX/LVN Penthouses & Ventilators

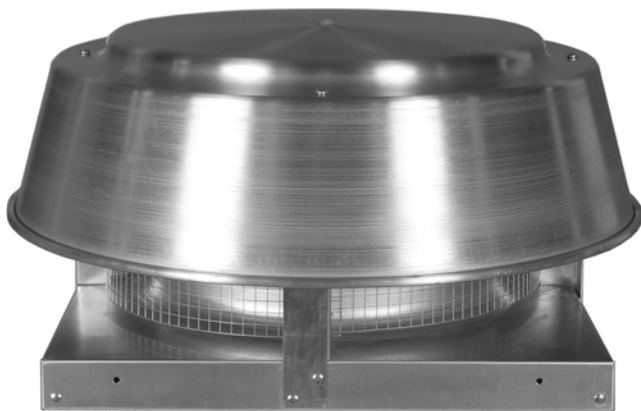
- The louvered look — a favorite selection for modern architectural eye appeal
- **PENTHOUSES** to dress up and beautify roof tops by enclosing unattractive mounted equipment viewed from higher floors and taller buildings
- **VENTILATORS** for exhaust relief and fresh air intake applications — capacities up to 103,900 CFM

Trimline Models TEV/TIV Hoods & Ventilators

- Modernistic low silhouette style to blend in with roof top lines and equipment
- Designed with improved aerodynamically shaped airflow passages
- For exhaust relief and fresh air intake applications — capacities up to 76,800 CFM



TEV/TIV
Pages 7 - 9



ARVE
Pages 10 & 11

Spun Aluminum ARVE Gravity Ventilators

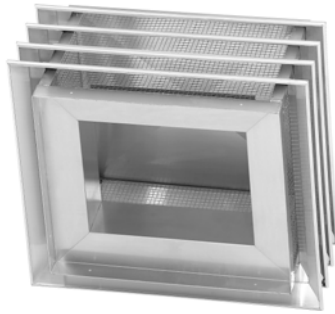
- A low silhouette relief vent that is compatible with modern architectural lines
- Contoured spun aluminum hood to match ILG Industries power roof ventilators
- For exhaust relief and fresh air intake applications — capacities up to 12,000 CFM.

LOUVERLINE Penthouses and Ventilators

The Louverline's aerodynamically designed extruded louvers offer pleasant low silhouette lines that blend with modernistic roof designs. When used as a penthouse to enclose or hide roof mounted equipment, the vertical and storm baffle is omitted.

CONSTRUCTION

- Extruded aluminum louvers are .081" thick, precision mitered at corners and welded for maximum strength.
- Large sizes are cross braced internally for extra rigidity and resistance to wind damage.
- Curb base is constructed of .080" aluminum. All mitered corners and seams are continuous welded for strength and water tightness.
- Removable hood is .050" thick aluminum, cross broke and reinforced as needed.



BIRD SCREEN

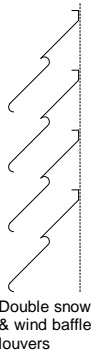
All ventilators and penthouses are equipped with 1/2" x 1/2" mesh galvanized welded wire, attached to inside perimeter of louvered opening. Screens are standard, but are omitted on ventilators when equipped with filters.

PERFORMANCE

Louverline models feature aerodynamically designed extruded louvers and generous air flow areas for efficient performance. They are louvered on all four sides for full 360° perimeter opening and multiple tiers for high air flow capacities.

WEATHER PROTECTION

- Curb base has a vertical snow and storm baffle extension surrounding throat opening to serve as an additional guard against storm driven snow and rain.
- Extruded louvers have a double water and snow baffle for added weather protection.
- Louvered ventilators are reasonably weather tight, however, they are not recommended for use where airborne water droplets from storms or high winds may damage the interior of the building.



EXHAUST — RELIEF Model LVX

Exhaust ventilators are designed for a maximum air velocity of 1000 feet per minute (FPM) through the louvered openings and a maximum of 1200 FPM through the throat.

The tables on Pages 4 and 5 show:

1. Throat size of each ventilator.
2. CFM air flow capacity.
3. Corresponding static encountered with the air flow.
4. Number of louvered tiers required.

FRESH AIR INTAKE Model LVN

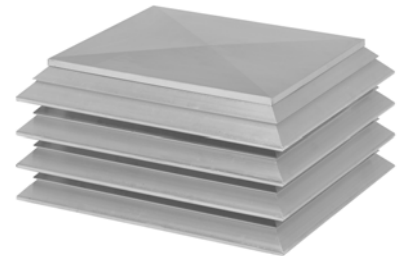
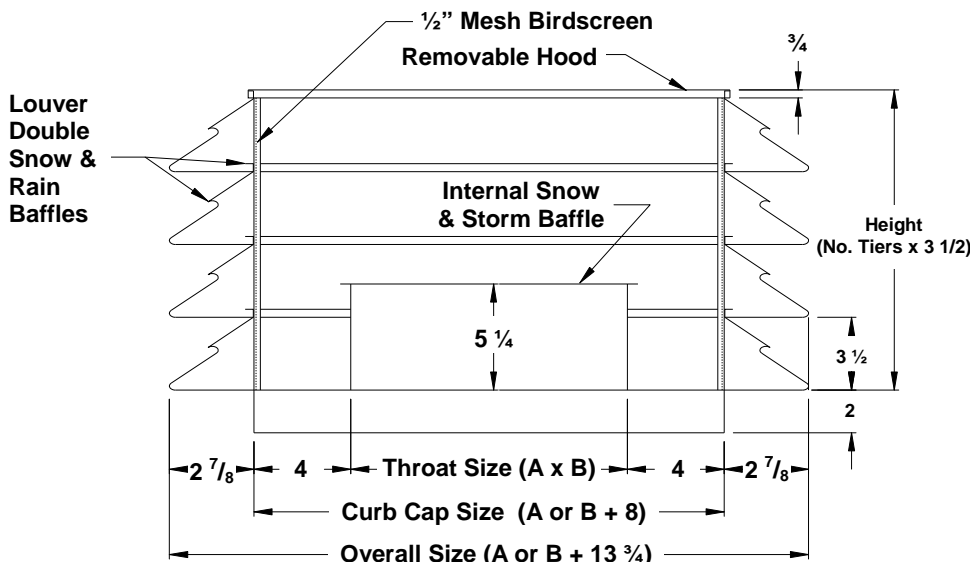
Air intake ventilators are designed for a maximum inlet velocity through the louver opening of 600 feet per minute (FPM) to reduce entrainment of rain or snow to a minimum. The maximum throat velocity is 1200 FPM.

The table on Page 6 shows:

1. Throat size of each ventilator.
2. CFM air flow capacity.
3. Corresponding static encountered with the air flow.
4. Number of louvered tiers required.

Special Sizes

In addition to the ventilators listed in the following tables, custom sized units are available upon request to meet other size or ventilation requirements. Contact your American Coolair representative or visit www.americancoolair.com for the complete line of available sizes and aerodynamic performances for the Louverline ventilators.



THROAT SIZE = A & B
(listed as "Throat Size" in tables)

CURB CAP SIZE = A or B plus 8"

OVERALL SIZE = A or B plus 13 3/4"

HEIGHT = 3 1/2" times No. Tiers

Model LVX Exhaust Louver Ventilators

Max exhaust velocity: 1000 FPM through Louvers — 1200 FPM through Throat

Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers
12				16x28	3,720	0.22	3	20x80	13,310	0.20	6	32x72	19,200	0.21	8
12x12	1,480	0.22	2	16x32	4,270	0.16	4	20x84	13,900	0.20	6	32x76	20,070	0.21	8
12x14	1,560	0.19	2	16x36	4,800	0.17	4	20x88	14,560	0.20	6	32x80	21,240	0.22	8
12x16	1,630	0.19	2	16x40	5,360	0.19	4	20x92	15,100	0.21	6	32x84	22,400	0.19	9
12x18	1,710	0.19	2	16x44	5,820	0.19	4	20x96	15,990	0.21	6	32x88	23,470	0.19	9
12x20	1,980	0.22	2	16x48	6,290	0.22	4	24				32x92	24,410	0.20	9
12x22	2,060	0.22	2	16x52	6,920	0.22	4	24x24	4,800	0.19	4	32x96	25,600	0.20	9
12x24	2,440	0.15	3	16x56	7,380	0.22	4	24x28	5,600	0.22	4	32x100	26,610	0.21	9
12x28	2,790	0.16	3	16x60	8,010	0.17	5	24x32	6,390	0.18	5	32x104	27,700	0.21	9
12x32	3,200	0.17	3	16x64	8,400	0.17	5	24x36	7,000	0.19	5	32x106	28,800	0.22	9
12x36	3,610	0.19	3	16x68	9,050	0.18	5	24x40	7,810	0.21	5	36			
12x40	3,950	0.19	3	16x72	9,500	0.18	5	24x44	8,680	0.22	5	36x36	10,940	0.22	6
12x44	4,400	0.21	3	16x76	10,100	0.19	5	24x48	9,550	0.18	6	36x40	12,000	0.19	7
12x48	4,750	0.22	3	16x80	10,610	0.19	5	24x52	10,200	0.18	6	36x44	13,080	0.20	7
12x52	4,990	0.22	3	16x84	11,080	0.19	5	24x56	11,010	0.19	6	36x48	14,300	0.21	7
12x56	5,400	0.16	4	16x88	11,700	0.20	5	24x60	11,900	0.20	6	36x52	15,520	0.22	7
12x60	6,000	0.17	4	16x92	12,210	0.20	5	24x64	12,800	0.21	6	36x56	16,750	0.18	8
12x64	6,320	0.17	4	16x96	12,790	0.21	5	24x68	13,450	0.22	6	36x60	17,970	0.19	8
12x68	6,800	0.18	4	18				24x72	14,360	0.18	7	36x64	19,200	0.22	8
12x72	7,200	0.19	4	18x18	2,700	0.19	3	24x76	15,140	0.19	7	36x68	20,220	0.22	8
12x76	7,460	0.18	4	18x20	2,920	0.18	3	24x80	15,910	0.19	7	36x72	21,540	0.19	9
12x80	7,900	0.19	4	18x22	3,280	0.20	3	24x84	16,800	0.21	7	36x76	22,700	0.20	9
12x84	8,400	0.19	4	18x24	3,590	0.22	3	24x88	17,600	0.20	7	36x80	23,880	0.21	9
12x88	8,780	0.19	4	18x28	3,900	0.22	3	24x92	18,290	0.20	7	36x84	25,200	0.22	9
12x92	9,170	0.19	4	18x32	4,330	0.16	4	24x96	19,200	0.21	7	36x88	26,560	0.22	9
12x96	9,580	0.20	4	18x36	5,200	0.19	4	28				36x92	27,550	0.19	10
14				18x40	5,800	0.20	4	28x28	6,000	0.20	4	36x96	28,800	0.20	10
14x14	1,630	0.19	2	18x44	6,500	0.22	4	28x32	7,460	0.20	5	36x100	30,200	0.20	10
14x16	1,870	0.21	2	18x48	7,130	0.17	5	28x36	8,330	0.22	5	36x104	31,100	0.21	10
14x18	2,000	0.21	2	18x52	7,800	0.18	5	28x40	9,300	0.18	6	36x108	32,300	0.21	10
14x20	2,140	0.19	2	18x56	8,330	0.19	5	28x44	10,170	0.19	6	36x112	33,510	0.22	10
14x22	2,560	0.15	3	18x60	8,910	0.20	5	28x48	11,090	0.21	6	40			
14x24	2,800	0.17	3	18x64	9,550	0.21	5	28x52	12,030	0.22	6	40x40	13,300	0.20	7
14x28	3,260	0.19	3	18x68	10,200	0.21	5	28x56	13,020	0.19	7	40x44	14,610	0.22	7
14x30	3,710	0.20	3	18x72	10,740	0.21	5	28x60	13,940	0.20	7	40x48	15,900	0.17	8
14x36	4,100	0.22	3	18x76	11,200	0.18	5	28x64	14,830	0.20	7	40x52	17,320	0.21	8
14x40	4,600	0.15	4	18x80	11,860	0.22	5	28x68	15,510	0.21	7	40x56	18,610	0.22	8
14x44	5,120	0.17	4	18x84	12,520	0.17	6	28x72	16,600	0.22	7	40x60	20,150	0.17	9
14x48	5,600	0.17	4	18x88	13,000	0.18	6	28x76	17,540	0.22	7	40x64	21,340	0.20	9
14x52	6,090	0.18	4	18x92	13,720	0.18	6	28x80	18,610	0.19	8	40x68	22,600	0.21	9
14x56	6,510	0.19	4	18x96	14,400	0.19	6	28x84	19,490	0.19	8	40x72	24,110	0.20	10
14x60	6,990	0.19	4	20				28x88	20,530	0.20	8	40x76	25,300	0.20	10
14x64	7,420	0.20	4	20x20	3,340	0.20	3	28x92	21,470	0.20	8	40x80	26,660	0.21	10
14x68	7,850	0.19	4	20x24	3,720	0.22	3	28x96	22,400	0.20	8	40x84	28,000	0.21	10
14x72	8,390	0.21	4	20x28	4,360	0.17	4	28x100	23,320	0.21	8	40x88	29,270	0.22	10
14x76	8,860	0.22	4	20x32	5,210	0.20	4	28x104	24,180	0.21	8	40x92	30,650	0.22	10
14x80	9,150	0.22	4	20x36	5,880	0.21	4	32				40x96	32,000	0.22	10
14x84	9,810	0.17	5	20x40	6,610	0.18	5	32x32	8,300	0.20	5	40x100	33,330	0.19	11
14x88	10,200	0.17	5	20x44	7,330	0.19	5	32x36	9,440	0.19	6	40x104	34,600	0.20	11
14x92	10,720	0.17	5	20x48	7,980	0.19	5	32x40	10,600	0.21	6	40x108	36,100	0.21	11
14x96	11,200	0.18	5	20x52	8,610	0.20	5	32x44	11,710	0.18	7	40x112	37,310	0.22	11
16				20x56	9,300	0.21	5	32x48	12,800	0.19	7	44			
16x16	1,980	0.22	2	20x60	9,990	0.22	5	32x52	13,770	0.20	7	44x44	16,130	0.19	8
16x18	2,400	0.15	3	20x64	10,660	0.17	6	32x56	14,820	0.21	7	44x48	17,600	0.21	8
16x20	2,660	0.17	3	20x68	11,300	0.18	6	32x60	15,990	0.18	8	44x52	19,000	0.22	8
16x22	2,890	0.18	3	20x72	11,950	0.19	6	32x64	17,060	0.19	8	44x56	20,540	0.21	9
16x24	3,200	0.19	3	20x76	12,500	0.20	6	32x68	18,080	0.20	8	44x60	22,000	0.21	9

Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers
44x64	23,400	0.22	9	52x108	46,800	0.22	13	64x108	57,600	0.21	15	80x100	66,600	0.21	17
44x68	24,880	0.20	10	52x112	48,480	0.22	13	64x112	59,850	0.22	15	80x104	69,300	0.21	17
44x72	26,400	0.21	10	52x120	52,060	0.20	14	64x120	64,100	0.20	16	80x108	71,860	0.22	17
44x76	27,800	0.21	10	56				68				80x112	74,720	0.22	17
44x80	29,350	0.22	10	56x56	26,100	0.21	10	68x68	37,880	0.22	12	80x120	80,650	0.22	18
44x84	30,800	0.20	11	56x60	28,000	0.21	11	68x72	40,800	0.21	13	84			
44x88	32,280	0.21	11	56x64	29,920	0.19	11	68x76	43,150	0.22	13	84x84	59,640	0.21	16
44x92	33,700	0.21	11	56x68	31,700	0.20	11	68x80	45,280	0.20	14	84x88	63,300	0.22	16
44x96	35,100	0.21	11	56x72	33,600	0.22	12	68x84	47,660	0.21	14	84x92	64,800	0.20	17
44x100	36,680	0.22	11	56x76	35,900	0.19	12	68x88	44,800	0.22	14	84x96	67,200	0.20	17
44x104	38,140	0.19	12	56x80	37,300	0.21	12	68x92	52,130	0.20	15	84x100	70,100	0.22	17
44x108	39,600	0.20	12	56x84	39,210	0.22	12	68x96	55,100	0.22	15	84x104	72,800	0.22	17
44x112	41,060	0.20	12	56x88	41,080	0.20	13	68x100	56,500	0.22	15	84x108	75,500	0.20	18
44x120	44,000	0.21	12	56x92	43,200	0.21	13	68x104	58,900	0.22	15	84x112	78,400	0.22	18
48				56x96	44,890	0.22	13	68x108	61,200	0.20	16	84x120	84,400	0.22	19
48x48	18,580	0.21	8	56x100	46,880	0.22	13	68x112	63,540	0.21	16	88			
48x52	20,800	0.21	9	56x104	48,500	0.20	14	68x120	68,000	0.22	16	88x88	64,600	0.22	16
48x56	22,420	0.22	9	56x108	50,460	0.20	14	72				88x92	67,500	0.21	17
48x60	23,960	0.19	10	56x112	52,480	0.21	14	72x72	43,500	0.22	13	88x96	70,400	0.22	17
48x64	25,590	0.20	10	56x120	56,140	0.22	14	72x76	45,600	0.20	14	88x100	73,100	0.22	17
48x68	27,270	0.22	10	60				72x80	48,000	0.21	14	88x104	76,300	0.22	18
48x72	28,780	0.19	11	60x60	30,000	0.21	11	72x84	50,040	0.22	14	88x108	80,520	0.22	18
48x76	30,400	0.20	11	60x64	31,800	0.22	11	72x88	52,900	0.21	15	88x112	82,100	0.21	19
48x80	32,080	0.21	11	60x68	34,080	0.20	12	72x92	54,450	0.21	15	88x120	88,100	0.22	19
48x84	33,600	0.22	11	60x72	36,100	0.21	12	72x96	57,800	0.22	15	92			
48x88	35,210	0.19	12	60x76	38,000	0.22	12	72x100	60,200	0.21	16	92x92	69,800	0.22	17
48x92	36,970	0.20	12	60x80	40,040	0.20	13	72x104	62,400	0.21	16	92x96	73,000	0.22	17
48x96	38,400	0.21	12	60x84	42,100	0.21	13	72x108	64,960	0.22	16	92x100	76,600	0.22	18
48x100	40,000	0.21	12	60x88	43,960	0.22	13	72x112	67,200	0.20	17	92x104	79,730	0.22	18
48x104	41,800	0.22	12	60x92	46,060	0.22	13	72x120	72,000	0.21	17	92x108	83,000	0.21	19
48x108	43,280	0.22	12	60x96	48,000	0.20	14	76				92x112	85,880	0.22	19
48x112	44,700	0.20	13	60x100	50,120	0.21	14	76x76	48,160	0.21	14	92x120	91,900	0.20	20
48x120	48,100	0.21	13	60x104	51,980	0.22	14	76x80	50,660	0.22	14	96			
52				60x108	54,140	0.22	14	76x84	52,820	0.21	15	96x96	76,800	0.21	18
52x52	22,410	0.22	9	60x112	56,100	0.20	15	76x88	55,800	0.22	15	96x100	80,000	0.22	18
52x56	24,300	0.20	10	60x120	60,300	0.20	15	76x92	58,340	0.22	15	96x104	83,100	0.21	19
52x60	26,100	0.21	10	64				76x96	60,800	0.21	16	96x108	86,500	0.22	19
52x64	27,700	0.22	10	64x64	33,000	0.22	11	76x100	63,200	0.22	16	96x112	89,600	0.22	19
52x68	29,400	0.20	11	64x68	36,300	0.21	12	76x104	65,950	0.20	16	96x120	96,200	0.22	20
52x72	31,390	0.21	11	64x72	38,400	0.22	12	76x108	68,400	0.21	17	100			
52x76	32,760	0.22	11	64x76	40,600	0.21	13	76x112	71,000	0.21	17	100x100	83,320	0.21	19
52x80	34,780	0.20	12	64x80	42,700	0.21	13	76x120	72,000	0.22	17	100x104	86,600	0.22	19
52x84	36,420	0.20	12	64x84	44,800	0.22	13	80				100x112	93,300	0.21	20
52x88	38,100	0.21	12	64x88	47,160	0.20	14	80x80	52,660	0.20	15	100x120	100,200	0.21	21
52x92	39,920	0.22	12	64x92	49,200	0.21	14	80x84	56,200	0.22	15	104			
52x96	41,600	0.22	12	64x96	51,200	0.22	14	80x88	58,600	0.20	16	104x104	90,100	0.20	20
52x100	43,300	0.20	13	64x100	53,300	0.20	15	80x92	61,330	0.21	16	104x112	97,070	0.22	20
52x104	45,100	0.21	13	64x104	55,500	0.21	15	80x96	64,150	0.22	16	104x120	103,900	0.22	21

When an application specifies a CFM capacity for a listed ventilator that is different from that shown for that ventilator in the tables, the new static pressure (Ps₂) for the specified CFM is readily determined by applying the equation:

$$Ps_2 = Ps_1(CFM_2/CFM_1)^2$$

The CFM₁ and Ps₁ are shown in the preceding tables while CFM₂ is the specified air flow capacity and Ps₂ is the static pressure to be determined.

Example: Model LVX 28x32 Exhaust Ventilator

CFM₁ is 7,460 and Ps₁ is 0.20"

The specified CFM₂ is 8,000

$$Ps_2 = 0.20(8,000/7,460)^2 = 0.20(1.072)^2 = 0.20 \times 1.15 = 0.23"$$

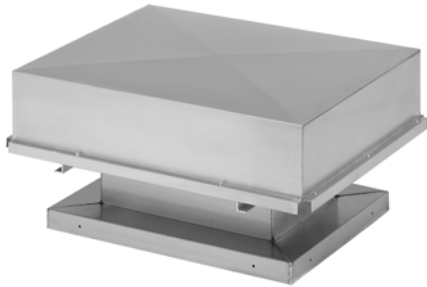
Model LVN Intake Louver Vent Performance

Max inlet velocity: 600 FPM through Louvers — 1200 FPM through Throat

Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers	Throat Size	CFM	Ps	No. Tiers
12				16x72	9,070	0.15	7	28x32	7,550	0.18	8	40x104	33,900	0.17	17
12x12	1,480	0.20	3	16x80	9,760	0.14	7	28x36	7,960	0.15	8	40x112	37,700	0.19	18
12x14	1,560	0.20	3	16x88	10,470	0.13	7	28x40	8,360	0.14	8	44			
12x16	1,630	0.19	3	16x96	12,760	0.18	8	28x44	9,840	0.17	9	44x44	15,530	0.15	12
12x18	1,710	0.15	3	18				28x48	10,300	0.15	9	44x48	17,470	0.18	13
12x20	1,780	0.14	3	18x18	2,580	0.16	4	28x52	10,750	0.14	9	44x52	18,120	0.15	13
12x24	2,580	0.18	4	18x20	2,680	0.14	4	28x56	12,450	0.16	10	44x56	20,220	0.18	14
12x28	2,790	0.18	4	18x24	3,600	0.18	5	28x60	12,960	0.14	10	44x60	20,920	0.16	14
12x32	2,990	0.15	4	18x28	3,850	0.15	5	28x64	13,470	0.14	10	44x64	23,160	0.18	15
12x36	3,180	0.14	4	18x32	4,100	0.12	5	28x72	15,890	0.15	11	44x72	26,300	0.18	16
12x40	3,380	0.13	4	18x36	5,210	0.16	6	28x80	18,530	0.18	12	44x80	29,650	0.19	17
12x44	4,470	0.18	5	18x40	5,520	0.14	6	28x88	19,730	0.16	12	44x88	31,350	0.17	17
12x48	4,720	0.17	5	18x44	5,830	0.14	6	28x96	22,670	0.19	13	44x96	34,990	0.18	18
12x52	4,970	0.14	5	18x48	7,130	0.18	7	28x104	23,980	0.17	13	44x104	36,790	0.16	18
12x56	5,220	0.14	5	18x52	7,480	0.16	7	32				44x112	40,740	0.18	19
12x60	5,470	0.13	5	18x56	7,840	0.14	7	32x32	7,950	0.15	8	44x120	42,640	0.16	19
12x64	5,730	0.13	5	18x60	8,190	0.14	7	32x36	9,400	0.17	9	48			
12x72	6,220	0.13	5	18x64	8,540	0.13	7	32x40	9,850	0.14	9	48x48	18,120	0.15	13
12x80	8,070	0.18	6	18x72	10,550	0.17	8	32x44	11,440	0.17	10	48x52	20,220	0.17	14
12x88	8,680	0.17	6	18x80	11,360	0.15	8	32x48	11,950	0.14	10	48x56	22,410	0.17	15
12x96	9,290	0.16	6	18x88	12,180	0.14	8	32x52	13,680	0.17	11	48x60	23,160	0.16	15
14				18x96	14,570	0.20	9	32x56	14,230	0.15	11	48x64	25,500	0.18	16
14x14	1,530	0.18	3	20				32x60	16,130	0.18	12	48x72	27,100	0.14	16
14x16	1,710	0.14	3	20x20	2,780	0.12	4	32x64	16,730	0.17	12	48x80	30,500	0.15	17
14x18	1,780	0.13	3	20x24	3,720	0.14	5	32x72	19,430	0.19	13	48x88	34,090	0.17	18
14x20	1,860	0.11	3	20x28	3,970	0.12	5	32x80	20,720	0.17	13	48x96	37,890	0.17	19
14x24	2,690	0.16	4	20x32	5,060	0.16	6	32x88	23,710	0.19	14	48x104	41,880	0.18	20
14x28	2,900	0.13	4	20x36	5,370	0.14	6	32x96	25,120	0.17	14	48x112	43,900	0.17	20
14x32	3,850	0.19	5	20x40	6,610	0.17	7	32x104	26,530	0.16	14	48x120	48,170	0.18	21
14x36	4,100	0.16	5	20x44	6,960	0.15	7	32x112	29,910	0.17	15	52			
14x40	4,350	0.14	5	20x48	7,320	0.14	7	36				52x52	22,410	0.18	15
14x44	4,600	0.14	5	20x52	7,670	0.13	7	36x36	10,940	0.18	10	52x56	23,160	0.18	15
14x48	4,860	0.13	5	20x56	9,150	0.17	8	36x40	11,440	0.16	10	52x60	25,500	0.17	16
14x52	6,110	0.19	6	20x60	9,560	0.16	8	36x44	13,130	0.18	11	52x64	27,950	0.17	16
14x56	6,420	0.18	6	20x64	9,970	0.14	8	36x48	13,680	0.15	11	52x72	31,400	0.18	18
14x60	6,710	0.16	6	20x72	12,070	0.19	9	36x52	15,530	0.18	12	52x80	35,040	0.19	19
14x64	7,020	0.15	6	20x80	13,000	0.17	9	36x56	16,130	0.18	12	52x88	36,940	0.16	19
14x72	7,610	0.14	6	20x88	13,910	0.15	9	36x60	18,120	0.18	13	52x96	40,880	0.17	20
14x78	7,920	0.14	6	20x96	14,810	0.14	9	36x64	18,770	0.17	13	52x104	45,020	0.18	21
14x80	8,210	0.14	6	24				36x72	21,620	0.18	14	52x112	47,140	0.17	21
14x88	10,280	0.18	7	24x24	4,760	0.18	6	36x80	23,020	0.16	14	56			
14x96	10,990	0.17	7	24x28	5,060	0.14	6	36x88	26,160	0.18	15	56x56	25,500	0.17	16
16				24x32	6,260	0.17	7	36x96	27,660	0.16	15	56x60	27,950	0.18	17
16x16	1,780	0.13	3	24x36	6,610	0.15	7	36x104	31,100	0.18	16	56x64	28,800	0.16	17
16x18	2,470	0.19	4	24x40	7,950	0.18	8	36x112	32,710	0.17	16	56x72	32,300	0.16	18
16x20	2,580	0.17	4	24x44	8,360	0.15	8	40				56x80	35,990	0.16	19
16x24	2,780	0.13	4	24x48	9,850	0.18	9	40x40	11,940	0.17	10	56x88	40,010	0.16	20
16x28	3,720	0.18	5	24x52	10,300	0.17	9	40x44	13,680	0.14	11	56x96	43,970	0.17	21
16x32	3,980	0.14	5	24x56	10,750	0.17	9	40x48	15,530	0.17	12	60			
16x36	4,230	0.13	5	24x60	11,210	0.16	9	40x52	16,130	0.14	12	60x60	30,000	0.17	18
16x40	5,360	0.18	6	24x64	12,940	0.19	10	40x56	18,120	0.17	13	60x64	31,400	0.17	18
16x44	5,670	0.16	6	24x72	13,960	0.18	10	40x60	20,220	0.19	14	60x72	34,040	0.17	19
16x48	5,980	0.14	6	24x80	14,950	0.13	10	40x64	20,920	0.17	14	60x80	38,890	0.17	20
16x52	6,290	0.14	6	24x88	17,530	0.18	11	40x72	23,910	0.18	15	64			
16x56	6,600	0.13	6	24x96	18,640	0.16	11	40x80	25,410	0.16	15	64x64	34,090	0.18	19
16x60	8,010	0.18	7	28				40x88	28,710	0.17	16	64x72	37,880	0.18	20
16x64	8,360	0.17	7	28x28	6,260	0.16	7	40x96	32,200	0.18	17	64x80	41,870	0.17	21

TRIMLINE Hooded Ventilators

The Trimline's low silhouette style blends aesthetically with modern roof top lines and equipment. The Trimline hoods are designed with aerodynamically shaped air flow passages for improved performance.



CONSTRUCTION

- Curb base constructed of .080" aluminum. All corners are miter cut. All seams and corners are continuous welded for strength and water tightness.
- The hood is reinforced and braced for extra rigidity and resistance to wind damage, utilizing channels and structural angles throughout.
- The hood is constructed of .050" aluminum and assembled with standing seams and snap lock seams that are secured with spot welds. No screws or rivets to break or work loose.

BIRD SCREEN

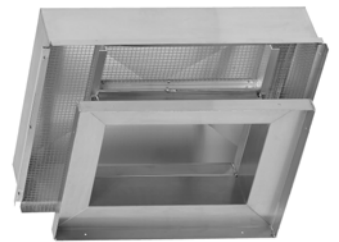
All hoods are equipped with ½" x ½" mesh galvanized welded wire as standard equipment. Screens are attached to the full hood perimeter opening with stainless steel or zinc plated fasteners. Screens are standard, but are omitted on ventilators when equipped with filters.

PERFORMANCE

The full 360° perimeter hood opening utilizes total wind action from any direction for more reliable air flow performance. Generously sized throat and hood perimeter openings provide low resistance and more efficient air flow.

WEATHER PROTECTION

- All curb base seams and corners are continuous welded for water tightness.
- Hoods have a special deflector flange on the edge of the perimeter opening for added protection against rain and snow, and a wide overhang for storm protection.



Special Sizes

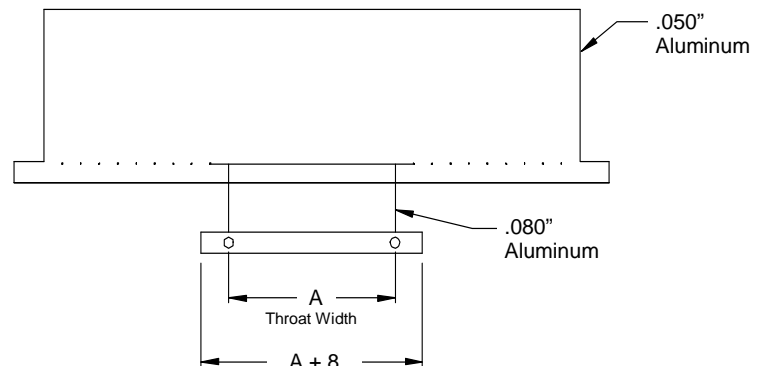
In addition to the ventilators listed in the following tables, custom sized units are available upon request to meet other size or ventilation requirements. Contact your American Coolair representative or visit www.americancoolair.com for the complete line of available sizes and aerodynamic performances for the Trimline ventilators.

EXHAUST — RELIEF Model TEV

Exhaust ventilators have a 1:1 ratio of hood perimeter opening to throat area. Maximum design air velocity through the hood and throat openings is 1200 FPM.

The table on Page 8 shows:

1. Throat size (width and length).
2. CFM air flow capacity.
3. Static pressure corresponding with the air flow.

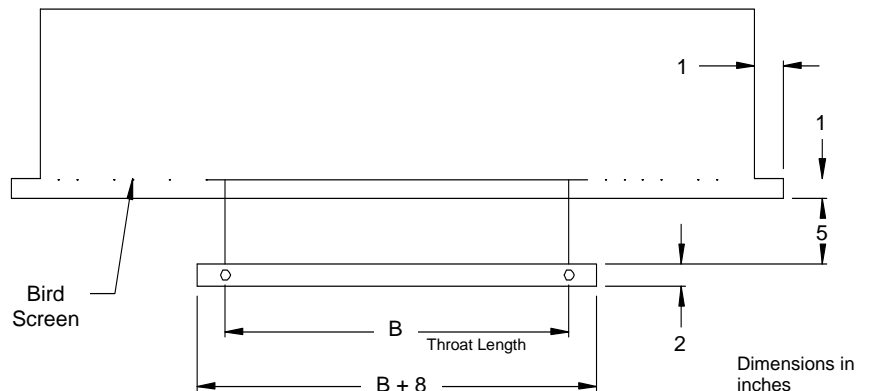


FRESH AIR INTAKE Model TIV

Air intake ventilators have a 2:1 ratio of hood perimeter opening to throat area. Maximum design air velocity through the hood opening is 600 FPM to reduce entrainment of rain or snow to a minimum. The maximum throat velocity is 1200 FPM.

The table on Page 9 shows:

1. Throat size (width and length).
2. CFM air flow capacity.
3. Static pressure corresponding with the air flow.



Model TEV Exhaust Relief Vent Performance

Max exhaust velocity: 1000 FPM through Hood Perimeter — 1200 FPM through Throat

Throat Size	CFM	Ps	Throat Size	CFM	Ps	Throat Size	CFM	Ps	Throat Size	CFM	Ps
12			16x80	9,810	0.25	22x120	19,250	0.23	36x120	31,500	0.24
12x12	1,520	0.26	16x84	10,410	0.25	24			42		
12x14	1,760	0.26	16x96	11,520	0.25	24x24	5,600	0.26	42x42	16,050	0.25
12x16	2,010	0.26	16x108	12,720	0.26	24x28	6,530	0.26	42x48	18,340	0.25
12x18	2,265	0.26	16x120	14,000	0.25	24x30	7,000	0.26	42x54	19,690	0.25
12x20	2,415	0.26	18			24x36	7,950	0.26	42x60	21,000	0.24
12x22	2,650	0.25	18x18	3,380	0.24	24x42	9,170	0.25	42x66	22,520	0.25
12x24	2,800	0.25	18x20	3,625	0.23	24x48	10,480	0.25	42x72	24,570	0.25
12x28	3,270	0.25	18x22	3,980	0.23	24x54	11,250	0.25	42x80	26,370	0.25
12x30	3,500	0.25	18x24	4,200	0.24	24x60	12,000	0.25	42x84	27,320	0.24
12x36	3,970	0.25	18x28	4,900	0.25	24x66	12,870	0.25	42x96	30,240	0.24
12x42	4,580	0.25	18x30	5,250	0.25	24x72	14,040	0.25	42x108	33,390	0.25
12x48	5,240	0.24	18x36	5,960	0.26	24x80	15,070	0.24	42x120	36,750	0.25
12x54	5,625	0.24	18x42	6,880	0.25	24x84	15,610	0.25	48		
12x60	6,000	0.23	18x48	7,860	0.25	24x96	17,280	0.24	48x48	20,960	0.26
12x66	6,430	0.23	18x54	8,440	0.24	24x108	19,080	0.24	48x54	22,500	0.25
12x72	7,020	0.24	18x60	9,000	0.25	24x120	21,000	0.23	48x60	24,000	0.25
12x80	7,530	0.24	18x66	9,650	0.26	28			48x66	25,740	0.25
12x84	7,800	0.22	18x72	10,530	0.26	28x28	7,620	0.24	48x72	28,080	0.25
12x96	8,640	0.22	18x80	11,300	0.26	28x30	8,170	0.25	48x80	30,130	0.25
12x108	9,540	0.23	18x84	11,710	0.26	28x36	9,270	0.25	48x84	31,220	0.25
12x120	10,500	0.23	18x96	12,960	0.27	28x42	10,700	0.25	48x96	34,560	0.25
14			18x108	14,310	0.25	28x48	12,230	0.25	48x108	38,160	0.24
14x14	2,055	0.25	18x120	15,750	0.26	28x54	13,120	0.25	48x120	42,000	0.24
14x16	2,350	0.25	20			28x60	14,000	0.26	54		
14x18	2,640	0.25	20x20	4,030	0.25	28x66	15,010	0.26	54x54	25,310	0.25
14x20	2,820	0.26	20x22	4,430	0.25	28x72	16,380	0.24	54x60	27,000	0.25
14x22	3,100	0.25	20x24	4,670	0.23	28x80	17,580	0.25	54x66	28,960	0.25
14x24	3,250	0.26	20x28	5,440	0.23	28x84	18,210	0.23	54x72	31,590	0.26
14x28	3,810	0.26	20x30	5,830	0.24	28x96	20,160	0.24	54x80	33,900	0.26
14x30	4,080	0.25	20x36	6,620	0.25	28x108	22,260	0.24	54x84	35,120	0.25
14x36	4,640	0.25	20x42	7,640	0.25	28x120	24,500	0.23	54x96	38,880	0.25
14x42	5,350	0.25	20x48	8,730	0.24	30			54x108	42,830	0.25
14x48	6,110	0.24	20x54	9,370	0.24	30x30	8,530	0.24	54x120	47,250	0.25
14x54	6,560	0.23	20x60	10,000	0.25	30x36	9,940	0.24	60		
14x60	7,000	0.23	20x66	10,720	0.24	30x42	11,460	0.25	60x60	30,000	0.26
14x66	7,510	0.23	20x72	11,700	0.24	30x48	13,100	0.26	60x66	32,170	0.25
14x72	8,190	0.24	20x80	12,550	0.24	30x54	14,060	0.26	60x72	35,100	0.26
14x80	8,790	0.24	20x84	13,010	0.25	30x60	15,000	0.25	60x80	37,670	0.25
14x84	9,100	0.23	20x96	14,400	0.25	30x66	16,090	0.25	60x84	39,020	0.25
14x96	10,080	0.22	20x108	15,900	0.23	30x72	17,550	0.26	60x96	43,200	0.25
14x108	11,130	0.23	20x120	17,500	0.22	30x80	18,830	0.26	60x108	47,700	0.26
14x120	12,250	0.23	22			30x84	19,510	0.25	60x120	52,500	0.26
16			22x22	4,870	0.24	30x96	21,600	0.24	66		
16x16	2,680	0.25	22x24	5,130	0.24	30x108	23,850	0.24	66x66	35,400	0.25
16x18	3,000	0.25	22x28	5,990	0.25	30x120	26,250	0.23	66x72	38,610	0.25
16x20	3,220	0.24	22x30	6,420	0.25	36			66x80	41,430	0.26
16x22	3,540	0.24	22x36	7,290	0.25	36x36	11,920	0.23	66x84	42,930	0.25
16x24	3,730	0.25	22x42	8,400	0.25	36x42	13,750	0.24	66x96	47,520	0.25
16x28	4,360	0.25	22x48	9,610	0.26	36x48	15,720	0.24	66x108	52,470	0.25
16x30	4,670	0.25	22x54	10,310	0.26	36x54	16,880	0.25	66x120	57,750	0.24
16x36	5,300	0.25	22x60	11,000	0.25	36x60	18,000	0.25	72		
16x42	6,110	0.24	22x66	11,800	0.25	36x66	19,300	0.24	72x72	44,120	0.25
16x48	6,990	0.24	22x72	12,870	0.25	36x72	21,060	0.24	72x80	45,200	0.24
16x54	7,500	0.25	22x80	13,810	0.25	36x80	22,600	0.25	72x84	46,830	0.25
16x60	8,000	0.25	22x84	14,310	0.24	36x84	23,410	0.25	72x96	51,840	0.26
16x66	8,580	0.26	22x96	15,840	0.25	36x96	25,920	0.26	72x108	57,240	0.25
16x72	9,360	0.26	22x108	17,490	0.23	36x108	28,620	0.24	72x120	63,000	0.25

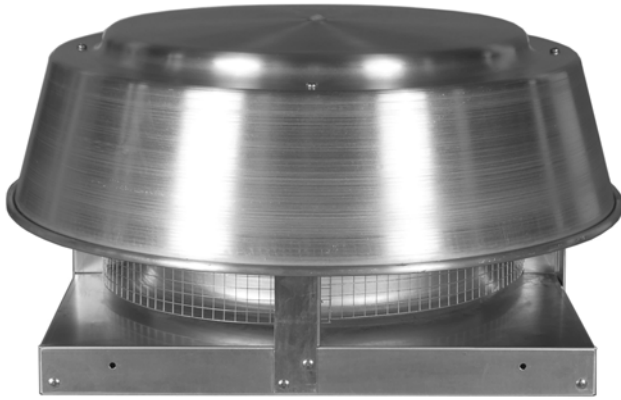
Model TIV Fresh Air Intake Vent Performance

Max intake velocity: 600 FPM through Hood Perimeter — 1200 FPM through Throat

Throat Size	CFM	Ps	Throat Size	CFM	Ps	Throat Size	CFM	Ps	Throat Size	CFM	Ps
12			16x80	11,650	0.19	22x120	23,920	0.18	36x120	38,800	0.20
12x12	1,300	0.18	16x84	12,130	0.18	24			42		
12x14	1,520	0.18	16x96	13,920	0.18	24x24	5,300	0.20	42x42	16,050	0.21
12x16	1,730	0.18	16x108	15,700	0.19	24x28	6,190	0.18	42x48	18,400	0.25
12x18	1,950	0.17	16x120	17,400	0.18	24x30	6,560	0.18	42x54	20,630	0.22
12x20	2,170	0.17	18			24x36	7,890	0.20	42x60	23,000	0.22
12x22	2,380	0.18	18x18	2,920	0.18	24x42	9,200	0.20	42x66	25,220	0.22
12x24	2,660	0.18	18x20	3,250	0.17	24x48	10,550	0.20	42x72	27,070	0.21
12x28	3,100	0.18	18x22	3,570	0.18	24x54	11,830	0.20	42x80	30,330	0.24
12x30	3,300	0.17	18x24	4,000	0.20	24x60	13,160	0.20	42x84	31,850	0.24
12x36	4,030	0.18	18x28	4,660	0.20	24x66	14,410	0.20	42x96	36,400	0.23
12x42	4,620	0.18	18x30	4,870	0.18	24x72	15,710	0.20	42x108	40,800	0.22
12x48	5,280	0.18	18x36	5,890	0.18	24x80	17,400	0.20	42x120	45,320	0.22
12x54	5,920	0.18	18x42	6,900	0.18	24x84	18,340	0.21	48		
12x60	6,580	0.18	18x48	7,900	0.20	24x96	20,800	0.20	48x48	20,900	0.25
12x66	7,230	0.18	18x54	8,880	0.20	24x108	23,500	0.20	48x54	23,580	0.25
12x72	7,890	0.18	18x60	9,860	0.21	24x120	26,200	0.19	48x60	26,200	0.25
12x80	8,730	0.18	18x66	10,850	0.18	28			48x66	28,710	0.23
12x84	9,190	0.18	18x72	11,840	0.19	28x28	7,190	0.18	48x72	31,100	0.25
12x96	10,480	0.18	18x80	13,100	0.19	28x30	7,700	0.18	48x80	34,670	0.25
12x108	11,800	0.17	18x84	13,810	0.19	28x36	9,200	0.20	48x84	36,400	0.24
12x120	13,150	0.18	18x96	15,600	0.19	28x42	10,740	0.20	48x96	41,440	0.23
14			18x108	17,550	0.18	28x48	12,130	0.20	48x108	46,620	0.24
14x14	1,770	0.18	18x120	19,500	0.18	28x54	13,800	0.20	48x120	52,000	0.24
14x16	2,020	0.17	20			28x60	15,300	0.20	54		
14x18	2,270	0.18	20x20	3,600	0.17	28x66	16,800	0.21	54x54	26,530	0.25
14x20	2,530	0.18	20x22	3,970	0.18	28x72	18,270	0.20	54x60	29,510	0.25
14x22	2,780	0.17	20x24	4,440	0.20	28x80	20,200	0.22	54x66	32,180	0.25
14x24	3,100	0.20	20x28	5,180	0.18	28x84	21,310	0.20	54x72	35,100	0.25
14x28	3,600	0.18	20x30	5,420	0.18	28x96	24,300	0.20	54x80	38,900	0.25
14x30	3,790	0.18	20x36	6,610	0.18	28x108	27,300	0.20	54x84	41,260	0.24
14x36	4,040	0.18	20x42	7,670	0.20	28x120	30,450	0.18	54x96	46,620	0.23
14x42	5,370	0.18	20x48	8,730	0.21	30			54x108	52,450	0.25
14x48	6,140	0.17	20x54	9,860	0.20	30x30	8,200	0.19	54x120	57,820	0.25
14x54	6,900	0.18	20x60	10,960	0.21	30x36	9,820	0.21	60		
14x60	7,650	0.18	20x66	12,050	0.20	30x42	11,510	0.21	60x60	32,500	0.25
14x66	8,400	0.18	20x72	13,100	0.19	30x48	13,000	0.21	60x66	35,780	0.25
14x72	9,200	0.18	20x80	14,550	0.18	30x54	14,700	0.20	60x72	38,900	0.25
14x80	10,190	0.19	20x84	15,280	0.19	30x60	16,350	0.20	60x80	43,170	0.25
14x84	10,620	0.18	20x96	17,400	0.18	30x66	18,010	0.21	60x84	45,320	0.25
14x96	12,130	0.18	20x108	19,560	0.19	30x72	19,680	0.20	60x96	51,800	0.25
14x108	13,700	0.18	20x120	21,750	0.18	30x80	21,750	0.21	60x108	58,050	0.25
14x120	15,210	0.17	22			30x84	22,840	0.20	60x120	64,250	0.26
16			22x22	4,370	0.18	30x96	26,100	0.20	66		
16x16	2,310	0.18	22x24	4,880	0.20	30x108	29,100	0.20	66x66	39,050	0.25
16x18	2,600	0.18	22x28	5,650	0.18	30x120	32,300	0.19	66x72	42,600	0.26
16x20	2,890	0.17	22x30	5,960	0.18	36			66x80	47,480	0.25
16x22	3,180	0.17	22x36	7,280	0.20	36x36	11,830	0.22	66x84	49,860	0.25
16x24	3,580	0.20	22x42	8,440	0.20	36x42	13,800	0.20	66x96	56,980	0.25
16x28	4,140	0.20	22x48	9,610	0.20	36x48	15,600	0.22	66x108	63,600	0.26
16x30	4,340	0.18	22x54	10,810	0.21	36x54	17,500	0.20	66x120	70,400	0.26
16x36	5,340	0.18	22x60	12,050	0.20	36x60	19,750	0.20	72		
16x42	6,140	0.18	22x66	13,210	0.21	36x66	21,610	0.20	72x72	46,450	0.26
16x48	6,990	0.18	22x72	14,400	0.20	36x72	23,500	0.20	72x80	51,800	0.26
16x54	7,890	0.20	22x80	16,000	0.20	36x80	26,100	0.22	72x84	54,390	0.25
16x60	8,780	0.20	22x84	16,810	0.19	36x84	27,400	0.23	72x96	62,160	0.26
16x66	9,610	0.18	22x96	19,100	0.18	36x96	31,200	0.22	72x108	69,120	0.26
16x72	10,520	0.18	22x120	23,920	0.18	36x108	35,010	0.22	72x120	76,800	0.26

ARVE

Relief/Intake Roof Ventilators



Application

A low silhouette relief vent that is compatible with modern architectural lines and also matches ILG Industries power roof ventilators. Units used for intake should be selected to maintain flow rates at or below the maximum intake velocity of 600 FPM to prevent entrainment of moisture. For intake units, a minimum curb height of 12" is recommended.

Suggested Specifications

Relief/Intake ventilators shall have circular hoods of spun aluminum. Vents will be low in silhouette to conform to present architectural styles, and will be compatible with power roof ventilators. Square bases will be constructed of aluminum. Vents will be equipped with galvanized mesh bird screen.

Construction

- Round spun aluminum hood
- Heavy gauge hood supports
- Bird screen
- Wide range of sizes for every need

Optional Features

- Two types of shutters available: (a) automatic or gravity operated, (b) motor operated
- Prefabricated curbs
- 3 mil epoxy powder paint
- Insect screen

Model ARVE Relief/Exhaust

Unit Size		12	16	20	25	31	37
Throat Area (ft ²)		0.79	1.40	2.18	3.40	5.24	7.46
500 CFM	Throat Vel.	637	357	229	147	95	67
	PD	0.048	0.014	0.004	0.003	0.002	0.001
1000 CFM	Throat Vel.	1274	714	459	294	191	134
	PD	0.193	0.054	0.018	0.011	0.008	0.002
1500 CFM	Throat Vel.		1071	688	441	286	201
	PD		0.123	0.040	0.025	0.017	0.006
2000 CFM	Throat Vel.		1429	917	588	382	268
	PD		0.218	0.070	0.045	0.030	0.010
3000 CFM	Throat Vel.			1376	882	573	402
	PD			0.158	0.101	0.068	0.022
4000 CFM	Throat Vel.				1176	763	536
	PD				0.180	0.122	0.040
5000 CFM	Throat Vel.				1471	954	670
	PD				0.281	0.190	0.062
6000 CFM	Throat Vel.				1765	1145	804
	PD				0.405	0.274	0.090
8000 CFM	Throat Vel.					1527	1072
	PD					0.486	0.159
10000 CFM	Throat Vel.						1340
	PD						0.249
12000 CFM	Throat Vel.						1609
	PD						0.358

Damper losses, if used, are not included in above table.

Throat Velocity=CFM/Throat Area

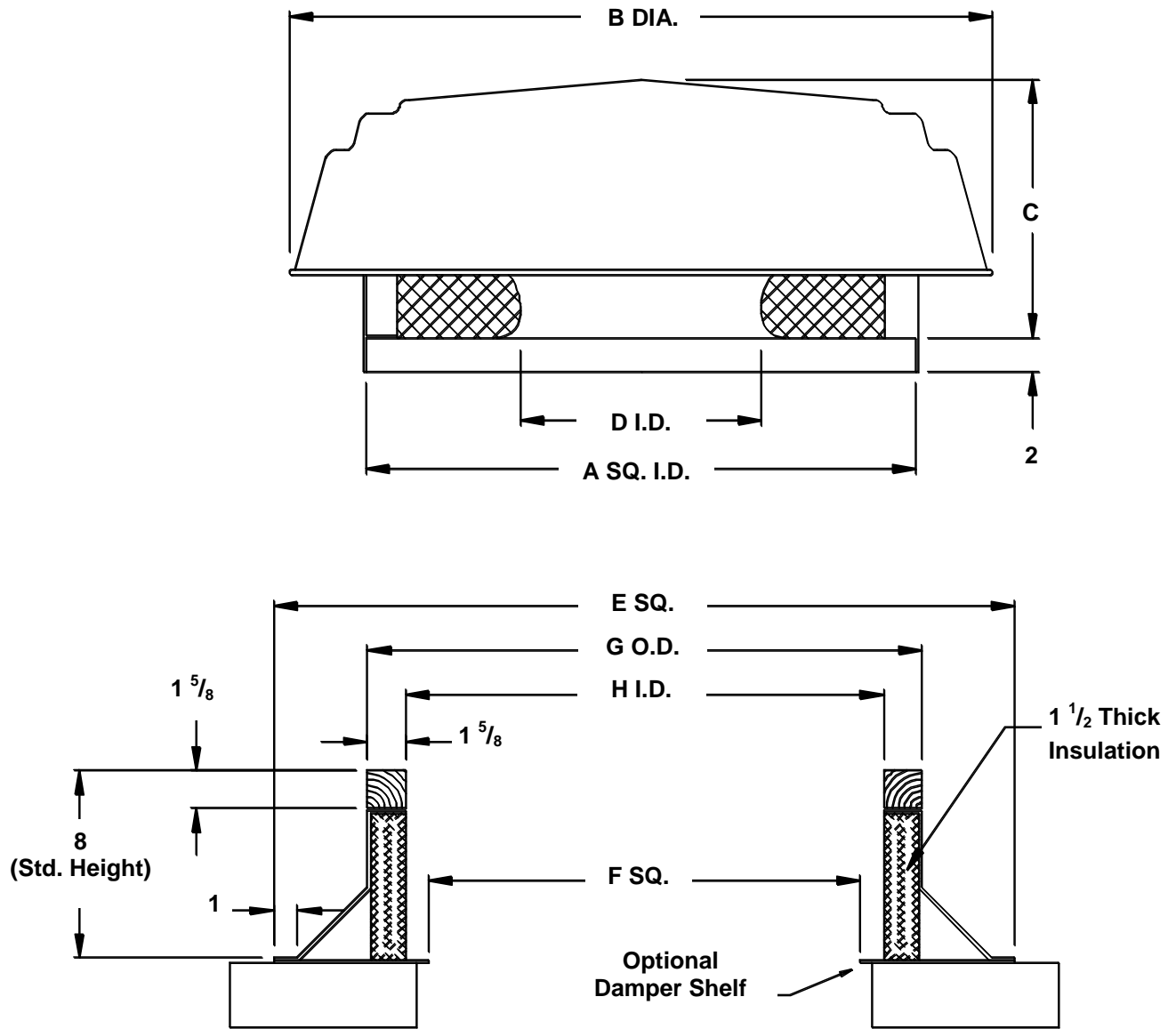
Model ARVE Fresh Air Intake

Unit Size		12	16	20	25	31	37
Intake Area (ft ²)		1.59	3.07	6.38	6.97	7.65	14.09
100 CFM	Intake Vel.	63	33				
	PD	0.006	0.001				
200 CFM	Intake Vel.	126	65	31	29	26	
	PD	0.024	0.005	0.002	0.001	0.001	
400 CFM	Intake Vel.	251	130	63	57	52	28
	PD	0.094	0.021	0.008	0.005	0.003	0.001
800 CFM	Intake Vel.	503	260	125	115	105	57
	PD	0.378	0.082	0.031	0.019	0.013	0.005
1000 CFM	Intake Vel.		326	157	144	131	71
	PD		0.129	0.048	0.030	0.020	0.008
2000 CFM	Intake Vel.			314	287	261	142
	PD			0.191	0.120	0.078	0.031
3000 CFM	Intake Vel.				431	392	213
	PD				0.270	0.176	0.070
4000 CFM	Intake Vel.					523	284
	PD					0.314	0.125
5000 CFM	Intake Vel.						355
	PD						0.196
6000 CFM	Intake Vel.						426
	PD						0.282
8000 CFM	Intake Vel.						568
	PD						0.501

Damper losses, if used, are not included in above table.

Intake Velocity=CFM/Intake Area

ARVE Ventilator & Roof Curb Dimensions



Unit Size	Ventilator Dimensions				Roof Curb Dimensions			
	A	B	C	D	E	F	G	H
12	18	23 ⁵ / ₈	13	12	24 ¹ / ₂	11 ¹ / ₄	16 ¹ / ₂	13 ¹ / ₄
16	23	28 ⁵ / ₈	12 ³ / ₈	16	29 ¹ / ₂	16 ¹ / ₄	21 ¹ / ₂	18 ¹ / ₄
20	30	39 ⁵ / ₈	15 ³ / ₈	20	36 ¹ / ₂	23 ¹ / ₄	28 ¹ / ₂	25 ¹ / ₄
25	34	43 ⁵ / ₈	16 ³ / ₄	25	40 ¹ / ₂	27 ¹ / ₄	32 ¹ / ₂	29 ¹ / ₄
31	40	48 ⁵ / ₈	18 ¹ / ₈	31	46 ¹ / ₂	33 ¹ / ₄	38 ¹ / ₂	35 ¹ / ₄
37	46	62 ⁷ / ₈	22 ¹ / ₈	37	52 ¹ / ₂	39 ¹ / ₄	44 ¹ / ₂	41 ¹ / ₄

Dimensions in Inches

Louverline LVX/LVN and Trimline TEV/TIV Standard Options

DECORATIVE COATING available as an industrial grade enamel in a variety of colors.

PROTECTIVE COATING

EPOXY — considered one of the best heavy duty multi-purpose finishes resistant to most chemicals and corrosive agents.

EISENHEISS — a synthetic resin that forms a tough black coating that offers better protection against most acids and other corrosive agents when compared to conventional industrial finishes.

HERESITE — a black phenolic coating that has good resistance to heat, solvents and concentrates of most acids except strong oxidizing agents. Resistance to weak alkalis but not recommended for hydrofluoric acid nor hypochlorite salts.

HINGED HOOD provides easy access for inspection and servicing of equipment or filters and screens.

FILTERS offered as 1" thick permanent type aluminum mesh mounted in removable frame for easy cleaning attached to inside perimeter of louvered opening. Note: Add .15" to the listed *static pressure* when using filters on AIR INTAKE ventilators.

INSECT SCREENS consist of 18 gauge mesh galvanized screen attached to the inside perimeter of the louvered opening.

Note: When using screens on EXHUAUST ventilators add .08" to the *static pressure* listed in the tables. For INTAKE ventilators add .03" to the listed *static pressure*.

ALUMINUM BIRD SCREENS consist of .060" thick 1/2" x 1" diamond shape expanded aluminum located on inside perimeter of louvered openings.

INSULATED HOOD to reduce condensation offered in rubberized anti-condensate undercoating or 1/2" thick bat type fiberglass insulation.

ARVE Options & Accessories

BACKDRAFT DAMPERS

Gravity or motor operated back draft dampers are available. They are of aluminum construction and designed for installation in prefabricated roof curbs.

PROTECTIVE COATINGS

ARVE units are not recommended for exhausting air of a corrosive nature. However, special protective coatings are available where units may be exposed to corrosive exterior conditions. Consult your ILG Industries representative for available coatings.

INSECT SCREENS

Fine mesh metallic screen to prevent the entry of insects.

Roof Curbs Available for All Models

For all types of roof mounting needs.

- Roofed-over-flashing or self-flashing types
- Galvanized steel or aluminum
- Single or double pitched roof types, sound attenuating, special restaurant requirements and equipment support rails
- Continuous welded seams
- Customized sizes



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