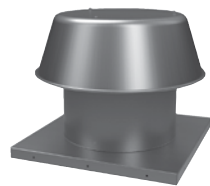
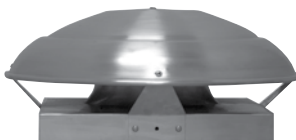


# MODELS RCXII/RCXII-SF

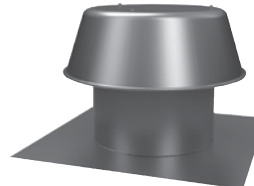
RELIEF/INTAKE GRAVITY VENTILATORS



RCXII (sizes 6-20)



RCXII (sizes 24-36)



RCXII-SF

## MODEL FEATURES

- Exhaust or Supply air up to 10,400 CFM in static pressure applications up to .35" w.g.
- All heavy-gauge aluminum construction
- Integral galvanized birdscreen
- Curb mounted or Self-flashing models

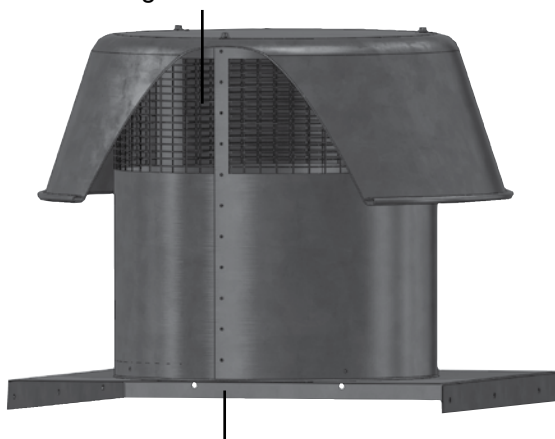
## MODEL OVERVIEW

Model RCXII and RCXII-SF relief or intake ventilators feature low contour spun aluminum hoods for an attractive appearance. They are designed to exhaust or supply air from or to an enclosed area without the need for a power operated fan. Available in two styles, these fans range in sizes from 6-36. The RCXII (curb) has a curb cap found on most roof ventilators and must be mounted on a roof curb (sold separately). Model RCXII-SF (self-flashing) has an extra wide, flat base that installed under roof shingles and does not require a roof curb. Both styles come standard with a galvanized bird screen

Model RCXII and RCXII-SF rely on a difference in static pressure inside and outside the area to create an airflow through the ventilator from the area of higher pressure to the area of lower pressure. If the enclosed area is under a negative pressure, air will flow into the enclosed area (intake). If the enclosed area has a positive pressure, air will flow from it to the outside (relief).

These units can also operate as gravity ventilators, allowing air to flow from an enclosed area using the "Stack Effect." The amount of air flow will depend on the temperature difference inside and outside the area and the height difference between the ventilator and the outside air intake to the area.

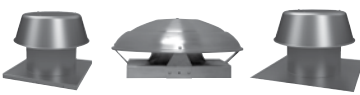
Integral Birdscreen



Available in Curb Mount or Self-Flashing versions

**Industry best 5 year fan housing warranty**

All specifications are subject to change without notice unless approved in submittal by Soler & Palau.



## **CONSTRUCTION/SPECIFICATION CHECKLIST**

- Five year warranty.
  - Low contour spun aluminum hood for attractive appearance.
  - All heavy-gauge aluminum construction.
  - Weather resistance design for long life and maintenance free operation.
  - Galvanized birdscreen is standard.
  - Available in 13 sizes for a wide range of performance capabilities.
  - RCXII has one-piece curb cap with spun inlet for maximum efficiency.
  - RCXII-SF is self flashing.
  - Shipped completely assembled for ease in installation.
- 

## **OPTIONS/ACCESSORIES**

**Roof Curb:** Prefabricated heavy-gauge galvanized steel, Clip Lock, 14” high (other heights are also available) with 1-1/2” wood nailer. Assures perfect fit of to roof opening. Options include burglar bars, single or double pitch construction and hinged curbs for easy duct access.

**Motor Operated Damper:** Motor operated aluminum damper for positive closure against backdraft.



**Automatic Damper:** Automatic aluminum damper for ease in installation and effective backdraft protection.

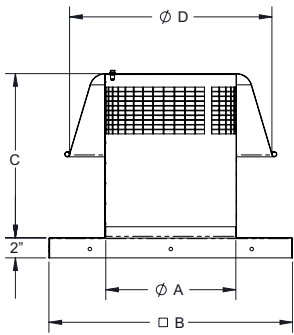
**Special Coatings:** for protective and decorative purposes. Available coatings include: Synthetic Resin, Epoxy, and Heresite (air-dried phenolic). Contact your representative or the factory for more information on available coatings and colors.

**Insect/Weather Screen:** Helps prevent insects, snow, airborne mist or water droplets from entering on supply applications exceeding 650 FPM velocity.



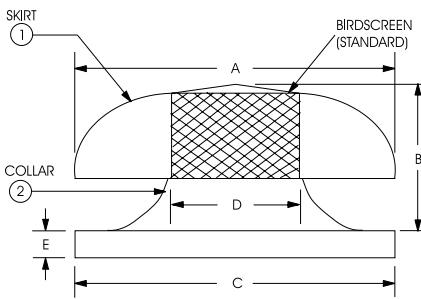
## DIMENSIONS

### RCXII (sizes 6-20)



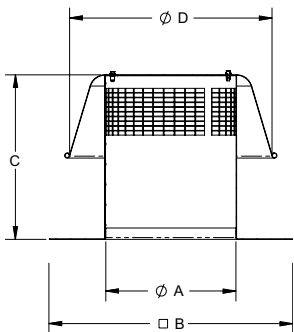
Size	A	B	C	D
06	7	16.5	8	18
08	9	16.5	10	18
10	11	24	10	25
12	13	24	10	25
14	15	24	12	32
16	17	24	14	32
18	19	29.5	14	32
20	21	29.5	16	36

### RCXII (sizes 24-36)



Size	Neck Area sq. ft.	Dimensions (Inches)					Metal Ga.	
		A	B	C	D	E	1	2
24	3.30	43-3/4	12-1/2	35-1/2	24-5/8	2	0.063	0.063
26	3.69	43-3/4	17-3/8	35-1/2	26	2	0.063	0.063
30	5.16	43-3/4	17-3/8	42-1/2	30-3/4	2	0.063	0.080
33	5.94	54-3/4	17-3/8	42-1/2	33	2	0.100	0.080
36	7.06	54-3/4	17-3/8	42-1/2	36	2	0.100	0.080

### RCXII-SF



Size	A	B	C	D
06	7	18	10	14
08	9	18	12	14
10	11	24	14	20
12	13	24	16	20
14	15	28	18	27
16	17	28	20	27
18	19	28	22	27
20	21	32	22	30



## PERFORMANCE DATA

### Models RCXII (sizes 6-20) and Models RCXII-SF

Relief	Throat Area Ft <sup>2</sup>	.025	.050	.100	.125	.150	.200	.250	.300	.350	BDD O.D Sq. (RCXII)	Prefab Curb Recom. O.D (RCXII)
6	0.3	93	131	185	207	227	262	293	320	346	8	14-3/4
8	0.4	221	313	442	494	541	625	699	766	827	8	14-3/4
10	0.7	297	420	594	664	727	840	939	1029	1111	12	22-1/4
12	0.9	493	697	986	1102	1208	1394	1559	1708	1845	12	22-1/4
14	1.2	604	853	1207	1349	1478	1707	1908	2091	2258	12	22-1/4
16	1.6	746	1055	1492	1668	1827	2110	2359	2584	2791	12	22-1/4
18	2.0	919	1300	1838	2055	2251	2599	2906	3184	3439	20	27-3/4
20	2.4	1127	1593	2253	2519	2759	3186	3562	3902	4215	20	27-3/4

Intake	Throat Area Ft <sup>2</sup>	.025	.050	.100	.125	.150	.200	.250	.300	.350	BDD O.D Sq. (RCXCII)	Prefab Curb Recom. O.D (RCXII)
6	0.3	64	91	128	143	157	181	202	222	239	8	14-3/4
8	0.4	148	209	296	331	363	419	468	513	554	8	14-3/4
10	0.7	202	286	404	452	495	571	639	700	756	12	22-1/4
12	0.9	330.5	467	661	739	810	935	1045	1145	1237	12	22-1/4
14	1.2	440.5	623	881	985	1079	1246	1393	1526	1648	12	22-1/4
16	1.6	552	781	1104	1234	1352	1561	1746	1912	2065	12	22-1/4
18	2.0	707.5	1001	1415	1582	1733	2001	2237	2451	2647	20	27-3/4
20	2.4	856	1211	1712	1914	2097	2421	2707	2965	3203	20	27-3/4

Insect Screens - Add .10 to area shown in table.

Damper - Add .10 to area shown in table.

Refer to page 68 for formulas for help in sizing.

### Model RCXII (sizes 24-36)

Relief	Throat Area Ft <sup>2</sup>	.030	.060	.090	.125	.150	.200	.250	.300	BDD O.D Sq. (RCXII)	Prefab Curb Recom. O.D (RCXII)
24	3.30	1535	2168	2656	3128	3429	3960	4425	4851	26	33-3/4
26	3.69	1716	2424	2970	3498	3834	4428	4948	5424	26	33-3/4
30	5.16	2399	3390	4154	4892	5361	6192	6920	7585	32	40-3/4
33	5.94	2762	3903	4782	5631	6172	7128	7966	8732	32	40-3/4
36	7.06	3283	4638	5683	6693	7335	8472	9467	10378	32	40-3/4

Intake	Throat Area Ft <sup>2</sup>	.030	.060	.090	.125	.150	.200	.250	.300	BDD O.D Sq. (RCXII)	Prefab Curb Recom. O.D (RCXII)
24	3.30	1376	1944	2383	2808	3076	3551	3969	4346	26	33-3/4
26	3.69	1539	2173	2664	3140	<b>3439</b>	<b>3970</b>	<b>4439</b>	<b>4860</b>	26	33-3/4
30	5.16	2152	3039	3726	4391	4809	5552	6207	6796	32	40-3/4
33	5.94	2476	3499	4289	5055	5536	<b>6391</b>	<b>7146</b>	<b>7823</b>	32	40-3/4
36	7.06	2944	4158	5097	6008	6580	7597	8493	9298	32	40-3/4

**Bold selections are over recommended 650 FPM. Pick next larger size or use optional weather screen.**

Insect Screens - Add .10 to area shown in table.

Damper - Add .10 to area shown in table.

Refer to page 68 or formulas for help in sizing.



## GRAVITY VENTILATORS SIZING



**RCXII (sizes 6-20)**



**RCXII (sizes 24-36)**



**RCXII-SF**



**BGH**



**RLX**

### Sizing

The tables shown offer quick selections at common static pressure points. Selection choices vary widely due to field conditions and size choices. The following formulas are useful in making selections:

$$(A) \text{ Throat Area} = \frac{\text{CFM}}{\text{Velocity}}$$

$$(B) \text{ Throat Velocity} = \frac{\text{CFM}}{\text{Throat Area}}$$

$$(C) \text{ Velocity Pressure} = \left[ \frac{\text{Throat Velocity}}{4005} \right]^2$$

(D) Determine new static pressure when CFM is known:

$$SP_2 = SP_1 \times \left[ \frac{\text{CFM}_2}{\text{CFM}_1} \right]^2$$

CFM<sub>2</sub> = Specified airflow

CFM<sub>1</sub> = Known CFM from table selection

SP<sub>2</sub> = Static pressure to be determined

SP<sub>1</sub> = Static pressure in table corresponding to CFM

(Ex.) Determine new unknown CFM when static pressure is known:

$$\text{CFM}_2 = \text{CFM}_1 \times \left[ \sqrt{\frac{SP_2}{SP_1}} \right]$$

CFM<sub>2</sub> = Unknown

CFM<sub>1</sub> = Catalog CFM

SP<sub>2</sub> = New static pressure where CFM is unknown

SP<sub>1</sub> = Known static pressure from known CFM (CFM<sub>1</sub>)