

# GRAVITY VENTILATORS SIZING



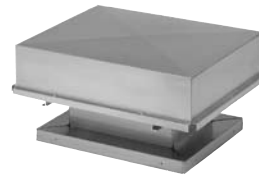
RCXII (sizes 6-20)



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) Throat Area =  $\frac{CFM}{Velocity}$

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

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

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

$$SP_2 = SP_1 \times \left[ \frac{CFM_2}{CFM_1} \right]^2$$

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:

$$CFM_2 = CFM_1 \times \left[ \sqrt{\frac{SP_2}{SP_1}} \right]$$

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>)