

CARNES®

Your Single Source for All Your HVAC Needs

WAREHOUSE STOCK CATALOG



Registers, Grilles,
& Diffusers



Humidifiers



Ventilators

Only Nature...
Moves & Conditions
Air Better!

CARNES®

VERONA, WI 53593
Phone: 608/845-6411
carnes@carnes.com

Fax: 608/845-6504
www.carnes.com

DO

CATALOG W-02
May 2013

Table of Contents

Thermally Adjustable VAV Diffuser	3
Stamped Steel Diffusers - Louvered and Plaque	4
Stamped Steel Diffusers - Perforated	5
Stamped Diffuser Accessories - Round or Square Neck	6
Steel Round Diffusers - Fixed and Adjustable	7
Steel Round Diffusers - Accessories	7
T-Bar Slot Diffusers - Fixed and Adjustable	8
SETM Extruded Aluminum Square Diffusers	8
Steel Square Diffusers - Fixed and Adjustable	9
Extruded Aluminum Grilles - All New M Series	10
Aluminum Registers & Grilles	11
Extruded Aluminum Registers & Grilles - Supply and Return	12
Steel Registers & Grilles - Supply and Return	13
Ventilator Fans - Ceiling and Inline	14
Replacement Humidifier Cylinders	15
Accessory Kit	15

SOFTWARE FOR EQUIPMENT SELECTION

FAN-C-LET™

The easy to use software program for the selection of power roof ventilators, propeller fans and ceiling fans. This program will generate performance, BHP curves, and dimensional drawings. Requires Windows™.

VAV-C-LECT™

The terminal unit selection program selects throttling and fan powered terminal units complete with integrated water and electric coil performance data. Equipment selection and performance data is presented in a user defined page format. Requires Windows™.

ENERGY-C-LECT™

The energy recovery selection software accurately predicts wheel performance and the static pressure drop. Selections can be printed or saved to a text file. The free program includes the user's manual and typical product specifications. Requires Windows™.

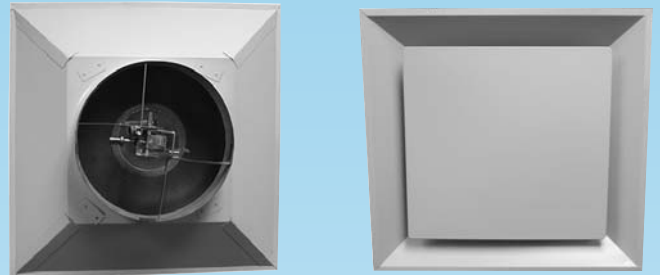
HUMIDIFIER-C-LECT™

Humidifier load calculations using the programs are extremely easy by simply entering design conditions or room dimensions. The humidification load is calculated and the program then leads the user through a step-by-step selection of the appropriate humidifier. Requires Windows™.

All Carnes selection software supports IP and SI (Metric) units of measure.

THERMALLY ADJUSTABLE VAV DIFFUSER (Model SFPV)

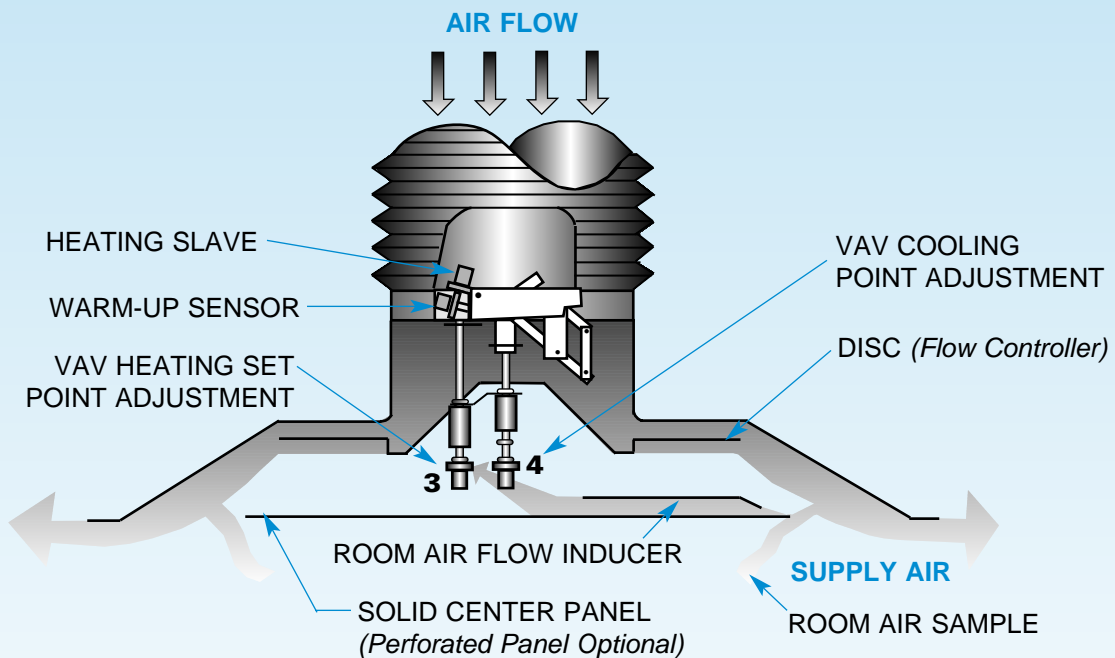
The model SFPV VAV Diffuser provides automatic room temperature control for heating and cooling without any electrical or pneumatic connections. Room air is induced past the thermal elements which sense and adjust air flow based upon space requirements. The separate heating and cooling set-points are factory set at 74 degrees but are fully adjustable. The SFPV is constructed of 24 gauge electro-galvanized steel with baked white enamel finish. The SFPV is an excellent match for the Acutherm ST-HC07 or Rickard VSD.



(Dimensions in Inches)

Size	SFPV	Reducing Ring
6	x	x
8	x	x
10	x	x
12	x	

INDUCTION PATH
Room air is induced across elements #3 and #4 by use of a simple induction wing. This diverts a small amount of supply air which induces a room air sample through an induction trough located on the back side of the appearance panel.



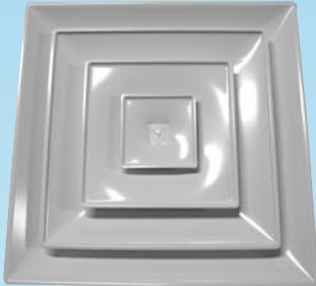
Models Available

- Large selection of products with off-the shelf shipment made within 48 hours.

CARNES 48-HOUR STOCK SERVICE provides you with literally hundreds of models and sizes.

- Steel Square Diffusers
- Steel Louvered Diffusers
- Alum. Registers & Grilles
- Steel Stamped Perforated Diffusers
- Aluminum Square Diffusers
- Equalizing Grids
- Steel Registers & Grilles
- Dampers - Round & Square

STAMPED STEEL DIFFUSERS - Louvered and Plaque



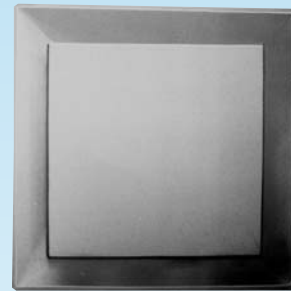
Model SFTB

Stamped Louvered Diffusers

Carnes round neck square diffusers combine the unobtrusive appearance of square diffusers with optimum performance of round diffusers. The smooth lines created by the stamping process eliminates the miter lines and creates a modern, aesthetically pleasing diffuser. Models available for fixed horizontal, and adjustable horizontal or vertical air patterns. Round necks are standard and designed primarily for flex duct connection. Collar height is a full 1-1/4" for easy connection taping. Round neck diffusers are available in eight sizes and can be selected for either surface mounting or T-bar lay-in. Models are available in cold rolled steel or aluminum construction.

Stamped Plaque Diffusers

Carnes plaque diffusers offer an architecturally pleasing alternative to the standard stamped louvered diffuser. The flat service of the plaque face blends better with suspended ceiling tiles, and the design delivers horizontal flow at low air flows. Round neck duct connections make this easy to install with flex duct.



Model SFPA

T-BAR MOUNT - Round Neck (Dimensions in Inches)

Listed Size	Neck Size	Nominal Overall Size	Model SJTB	Model SFTB	Model SFPA	Model SHPA
2406	6	24 x 24	X	X	X	X
2408	8	24 x 24	X	X	X	X
2410	10	24 x 24	X	X	X	X
2412	12	24 x 24	X	X	X	X
2414	14	24 x 24	X	X	X	
2416	16	24 x 24		X		

SJ_B = Adjustable for horizontal or vertical patterns.

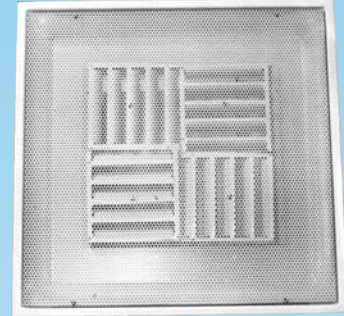
SF_B = Fixed horizontal pattern.

REGISTERS, GRILLES & DIFFUSERS

48
HOUR

STAMPED STEEL DIFFUSERS - Perforated

Carnes stamped perforated diffusers are available with round or square inlets. By simple on-the-job adjustment, 1-way, 2-way, 2-way corner, 3-way or 4-way air patterns can be attained. Matching supply and return models are available for plaster, T-bar, Donn Fineline or spline ceilings. Models are also available with adjustable curved vane pattern controls. These models are available in 1-way, 2-way, 2-way corner, 3-way or 4-way air patterns with round or square inlets.



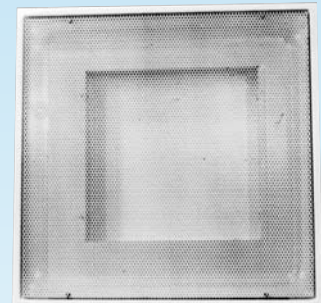
Model SPAB

FLUSH FACE - Round Neck (Dimensions in Inches)

Neck Size	Supply T-Bar Frame All 23-3/4 x 23-3/4 Panels SPAB 224	Supply T-Bar Frame 4-Way Blow All 23-3/4 x 23-3/4 Panels SPFC 224	Return T-Bar Frame All 23-3/4 x 23-3/4 Panels SPRB 224
06	X	X	X
08	X	X	X
10	X	X	X
12	X	X	X
14			X
16			

FLUSH FACE - Square Neck (Dimensions in Inches)

Neck Size	Return T-Bar Frame All 23-3/4 x 23-3/4 Panels SPJB 224	Return T-Bar Frame All 23-3/4 x 23-3/4 Panels SPJB 124	Return Perforated Panel Only (Non-Ducted) SPHB
8 x 8	X		11-3/4 x 23-3/4
10 x 10	X		Model SPHB 124
12 x 12	X		23-3/4 x 23-3/4
18 x 18	X		Model SPHB 224
22 x 22	X		
10 x 22		X	



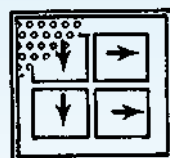
Model SPRB/SPJB



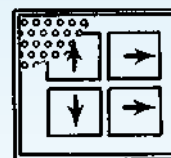
ONE-WAY



TWO-WAY



TWO-CORNER



THREE-WAY



FOUR-WAY

REGISTERS, GRILLES & DIFFUSERS

STAMPED DIFFUSER ACCESSORIES - Round or Square Neck

Model KXKA - Opposed Blade Damper



The model KXKA opposed blade damper is designed to control the amount of air that passes through the diffuser. The damper blade lever control is located perpendicular to blade length and approximately midway of frame length.

Model KXYA - Equalizing Grid



The model KXYA equalizing deflector is a grid to equalize the air flow through a stub duct to the diffuser. Recommended installation is flush with the duct take-off collar. Each blade is individually adjusted to any position desired. The end tabs hold the grid in place by friction.

Model KXMB - Opposed Blade Damper



The model KXMB volume control dampers are opposed blade, gang operated, fully adjustable units. The opposed blade action distributes air evenly over the diffuser. Model KXMB dampers are installed in the neck of the diffuser.

Round Neck (Dimensions in Inches)

Neck Size	Opposed Blade Volume Damper Model KXMB
6	X
8	X
10	X
12	X
14	X
16	X

For use with stamped louvered or stamped perforated round neck models.

Square Neck
(Dimensions in Inches)

Neck Size	Square Opposed Blade Damper Model KXKA
6 x 6	X
8 x 8	X
9 x 9	X
10 x 10	X
12 x 12	X
15 x 15	X
18 x 18	X
22 x 22	X

For use with stamped perforated square neck models.

Auxiliary Frame (Dimensions in Inches)

For SF or SJ Stamped Louvered or SP Stamped Perforated Diffusers

Model	Size
KXFAA	12 x 12
KXFAA	24 x 24

Model	Size
KXFAS	12 x 12
KXFAS	24 x 24

Allows installation of T-Bar Diffusers in plaster or gyp board ceiling.

STEEL ROUND DIFFUSERS - Fixed and Adjustable

Carnes round ceiling diffusers are available for a variety of applications. This line includes units that are completely adjustable, semi-adjustable or non-adjustable. Adjustable units are ideal where horizontal and vertical air patterns are desired. The three position adjustable unit provides a horizontal, vertical or intermediate pattern while the non-adjustable units are for horizontal patterns.

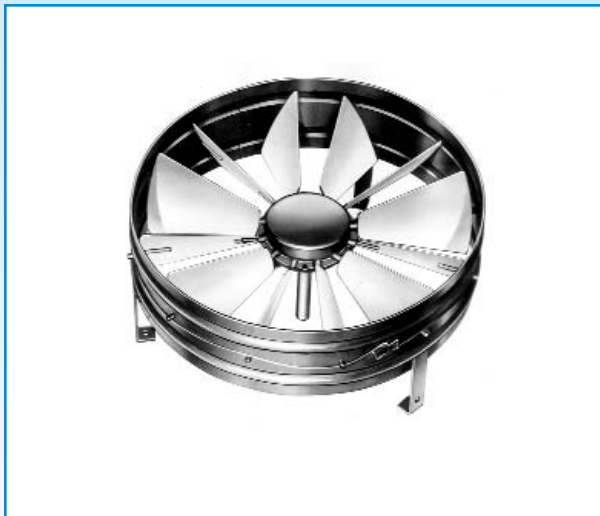


(Dimensions in inches)

Size	SSAA (Infinite Adjustable)	SSMA (3 Position Adjustable)	SSEA (Fixed)	KXRA Opposed Blade Damper
6	X	X	X	X
8	X	X	X	X
10	X	X	X	X
12	X	X	X	X
14	X		X	

STEEL ROUND DIFFUSER - Accessories

Model KXRA - Opposed Blade Damper



The Model KXRA volume control damper can be used on models SSAA, SSMA and SSEA. The volume control is an opposed blade, gang-operated damper that is fully adjustable from the face of the diffuser. The opposed blade action distributes the air evenly over the diffuser and eliminates the need for using equalizing grids.

Installation is quick and easy. Just attach the Model KXRA to the inner cone assembly of the diffuser and snap the assembly into the ceiling plate to complete installation.

The Model KXRA unit is furnished with legs for attaching to the removable inner cone assembly of the diffuser. A fusible linkage attachment is available on sizes 8 through 14. The fuse link only is UL Listed.

T-BAR SLOT DIFFUSERS - Fixed and Adjustable

FIXED PATTERN

Plenum slot diffusers are an integral part of the variable air volume system. They blend in harmoniously with ceiling architecture while providing extraordinary air distribution qualities. These diffusers reduce the effect of down draft at low air quantities and discharge a remarkably uniform air flow. Plenum slot diffusers are especially valuable where there are high throttling ratios at low CFM levels, and will cool supply air to assure proper induction and mixing with room air. They are manufactured from rust-resistant galvanized steel. Models are available for supply, return, supply with down blow feature and supply with return combination.



Model DFSB



Models DARC & DASC

ADJUSTABLE PATTERN

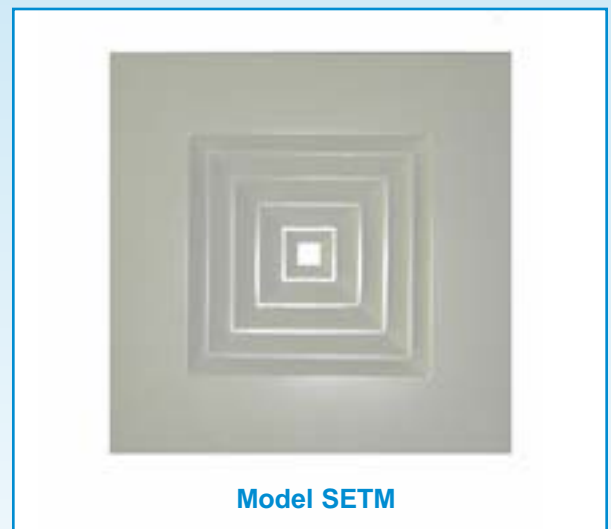
Carnes DA Series adjustable pattern T-bar slot diffusers are compatible with most T-bar ceiling types. Models are also available for Donn Fineline ceilings. Models are available for both supply and return applications. Each supply model has an individually adjustable pattern control in each slot for horizontal or vertical air pattern. Both supply and return models are available with insulated or uninsulated plenums. The insulation conforms to UL 181 and HFPA 90A requirements. Available with center tee (DARC) or without (DASC).

ADJUSTABLE PATTERN (Dimensions in inches)

Model	Inlet Size	Length	Slot Width	# Of Slots
DARC	8	48	3/4	2
DARC	8	48	1	2
DARC	6	24	1	2

THE SETM

The SETM is an extruded aluminum square diffuser. It is part of the new M-Series which offers a lower cost option than the current SETA. This aluminum lay-in diffuser is stocked in square neck, 4-way blow only. Standard finish is #11 Bright White Powder Coat. Please see the rest of the M-Series on the following pages.



Model SETM

ALUMINUM SQUARE DIFFUSER - Square Neck

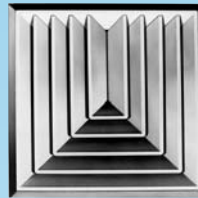
(Dimensions in inches)

Neck Size	SETA-40 4-Way Blow T-Bar Lay-In 23-3/4x23-3/4	Extruded Aluminum Opposed Blade Damper Model KXKM
6x6	X	X
8 Round	X	X
10 Round	X	X
15x15	X	X
18x18	X	X

STEEL SQUARE DIFFUSERS - Fixed and Adjustable

Carnes steel louvered face diffusers are among the most versatile ceiling diffusers on the market. They provide excellent performance in low flow VAV situations and their dump-resistant performance makes them well suited for cold air applications. They are available in a wide range of sizes and blow patterns, fit a variety of ducts and come in frame styles to fit most ceiling systems on the market. Models available in fixed horizontal or adjustable discharge.

Model SKSA 30
3-Way Blow



Model SKSA 40
4-Way Blow



FIXED - Square Neck (Dimensions in Inches)

Neck Size	Fixed with F Frame 4-Way Blow Model SKFA-40	Fixed With S Frame 4-Way Blow Model SKSA-40	Fixed With T-Bar Frame 4-Way Flow 23-3/4x23-3/4 Panel SKTA-40
6x6	X	X	X
9x9	X	X	X
12x12	X	X	X
15x15		X	X
18x18			X
21x21			

FIXED - Round Neck (Dimensions in Inches)

Neck Size	Model SKSA-40 4-Way Blow S-Frame	Model *SKTA-40 4-Way Blow T-Bar Lay-In
6x6 to 6 Rd.		X
9x9 to 8 Rd.	X	X
12x12 to 10 Rd.	X	X
12x12 to 12 Rd.		X

*23-3/4x23-3/4 T-Bar Lay-In

ADJUSTABLE - Round Neck (Dimensions in Inches)

Neck Size	T-Bar Frame 4-Way Blow 23-3/4x23-3/4 Model SKTJ-40
6x6 to 6 Round	X
9x9 to 8 Round	X
12x12 to 10 Round	X

STEEL SQUARE DIFFUSER ACCESSORIES (Dimensions in Inches)

Neck Size	Model KXKA Steel Opposed Blade Damper
6x6	X
9x9	X
12x12	X
15x15	X
18x18	X



Model KXKA

EXTRUDED ALUMINUM GRILLES - All New M Series

SUPPLY GRILLES

Carnes' all new M-Series supply grilles are constructed from high quality extruded aluminum with a lower cost option than the current A- Series. The frame is flat with mitered, square edges for more of a modern design. Standard countersunk screw holes and powder coat finish. The bars have a 3/4" spacing and can be adjusted to provide control of the air stream in multiple directions. Gaskets are provided to prevent leakage around the frame. Available in single deflections (RASMH) or double deflection (RADMH).



Model RASMH



Model RADMH

RETURN GRILLES - 35 & 45 Degree Blades

Carnes' all new M-Series return grilles are constructed from high quality extruded aluminum with a lower cost option than the current A-Series. The frame is flat with mitered, square edges for more of a modern design. Standard countersunk screw holes and powder coat finish. Gasket is not included on return grilles. Model RAAMH comes with 35 degree teardrop blades with a 3/4" spacing. Also available is a 45 degree airfoil blade with a 1/2" spacing (RAJMH).



Model RAJMH

EGGCRATE FILTER RETURN GRILLE



Model RAPMF

The all aluminum louvered return grilles feature extruded aluminum frames and fabricated aluminum louvers. The core is 1/2" x 1/2" x 1/2". Registers are available with either an extruded aluminum or steel opposed blade damper. Standard finish is Bright White Powder Coat. The grilles use 1" filters (Carnes does not supply).

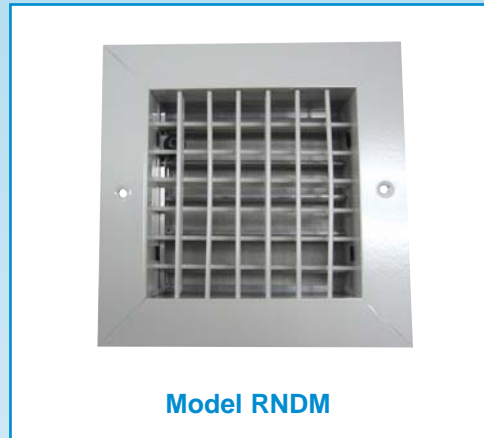
REGISTERS, GRILLES & DIFFUSERS

48
HOUR

ALUMINUM REGISTERS & GRILLE

(Dimensions listed in inches)

Size	35° Blades RAAMH	Filter Grille RAAMH	RNAMH
6 x 6	X	X	X
8 x 4		X	
8 x 6	X	X	X
8 x 8	X	X	X
10 x 4			
10 x 6			
10 x 10	X	X	X
12 x 4			
12 x 6			
12 x 8	X	X	X
12 x 12	X	X	X
14 x 6		X	
14 x 14	X	X	X
16 x 6			
16 x 8	X	X	
16 x 16			X
18 x 18			X
18 x 6		X	
18 x 8			
18 x 18		X	
20 x 6		X	
22 x 6			
22 x 10	X		X*
22 x 22	X		X*
21 x 9			
21 x 21		X	
21-3/4x9-3/4		X	
21-3/4x21-3/4		X	
24 x 6		X	
24 x 10			
24 x 12		X	
45 x 21			



Note: Units do not have screw holes for lay in application.

NOTE: All grille sizes in stock are also available as registers.

REGISTERS, GRILLES & DIFFUSERS

EXTRUDED ALUMINUM REGISTERS & GRILLE - Supply and Return

The extruded aluminum register and grille products cover a broad line. Constructed from natural anodized aluminum extrusions, these registers and grilles are available in adjustable single and double deflection supply, or curved blade supply in 1-way, 2-way, 3-way and 4-way directional patterns. Return grilles and registers are styled to match the supply units. Extruded products have flat borders with clean lines and mechanically joined corners for extra strength and minimum hairline mitered joint.

(Dimensions listed in inches)



Unit Size	Return Grille 1/2x1/2x1/2 Eggcrate Model RAPA F	Return Register w/Alum. Damper 1/2x1/2x1/2 Egg Crate Model RNPA F	Return Grille Fixed Blades 1/2x1/2x1/2 w/U-Channel Model RAPA H	Return Core Only 1/2x1/2x1/2 2'x2' Lay-In* Model RAPA C	RAEAF	Eggcrate Filter Grille Model RAPMF
6 x 6	X	X				X
8 x 4						X
8 x 6	X					
8 x 8	X	X				X
10 x 6						X
10 x 8						
10 x 10	X*	X			X	X
10 x 22	X	X				
12 x 6						
12 x 8						X
12 x 12	X	X			X	X
14 x 8	X					
14 x 14	X					
16 x 16	X				X	
18 x 12						
18 x 18	X					
21 x 21						X
22 x 22	X*	X*			X*	
24 x 12	X		X	X		
24 x 24	X		X	X		
46 x 22			X		X*	

* No screw holes for lay in application

* O.D. 23-13/16" x 23-13/16" for 2' x 2" T-Bar Lay-In.

STEEL REGISTERS & GRILLE - Supply and Return

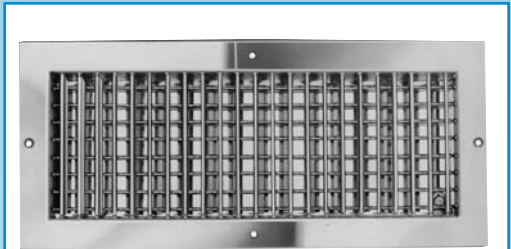
Carnes units are single or double deflection adjustable registers and grilles. The attractive supply units provide effective directional air stream control in one or two directions for single deflection or up to four directions for double deflection units. Return air registers and grilles are styled to match the supply units.

(Dimensions listed in inches)

Unit Size	Double Deflection Supply Grille Damper Model RTDBV	Return Grille Damper, Horiz. Blades 45° Model RSABH	Filter Grille Model RSABH	Return Grille Damper Horiz. Blades Model RTABH	Return Grille Damper Horiz. Blades Model RSLAH	Return Grille Horiz. Blades Model RTLAH
6 x 6				X	X	X
8 x 4						
8 x 6	X					
8 x 8		X		X	X	X
10 x 4	X					
10 x 6	X					
10 x 8						
10 x 10		X		X	X	X
12 x 6	X	X				
12 x 8	X					
12 x 12		X		X	X	X
14 x 6	X					
14 x 8	X					
14 x 14		X				
16 x 6	X					
16 x 8	X					
16 X 16					X	
18 X 6	X					
18 X 12						
18 x 18					X	
20 x 6	X					
20 x 8	X					
21 x 21			X			
21-3/4 x 9-3/4		X*			X*	
21-3/4 x 21-3/4		X*		X*	X*	X*
24 x 6	X					
24 x 8	X					
24 x 10	X					
24 x 12	X					
24 x 24		X				
45-3/4 x 21-3/4						

*No screw holes for lay in application.

*Hinged to Plaster Frame — with 1" Filter Clips — For 2' x 2' Lay-In takes 20" x 20" Filter.



Model RTDBV



Model RTABH



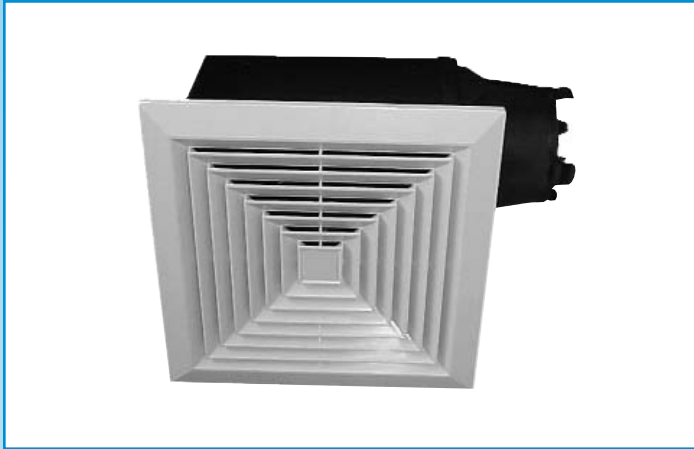
Model RTLAH



Model RSLAH

VENTILATOR FANS - Ceiling and Inline

Model VCDK 005C-015C (Ceiling Fans)

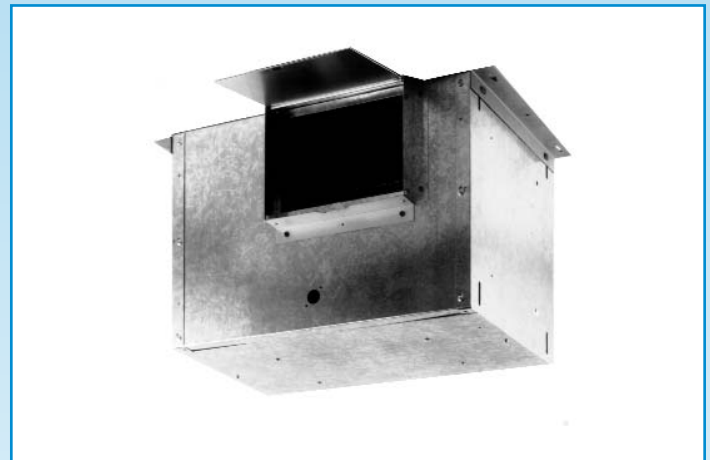


Carnes model VCDK ceiling fans have been designed to give quality conscious architects, design engineers, builders and specifiers the ultimate in heavy duty, quiet ventilation.

Available from 100 to 3,500 CFM, all units use centrifugal blower wheels and low RPM motors on resilient mounts. Most have acoustic insulation inside a rugged, heavy duty housing for further sound reduction.

Available in ceiling fan or dedicated-inline models. Great for offices, conference rooms, bathrooms, hospital rooms or anywhere quiet, high-capacity ventilation is needed.

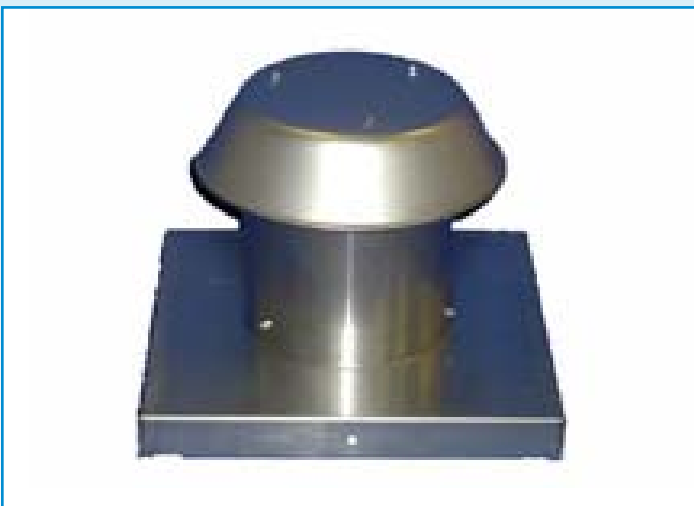
Models VCDK 090-170C (Inline Fans)



(Dimensions listed in inches)

Size	Ceiling	Inline
5	X	
8	X	
9	X	
10	X	
15	X	
90	X	X
130	X	X
170	X	X

VENTILATOR ACCESSORIES



Model VXCAF (Flat Roof Cap)

Model VXCAC (Curb Mounted Roof Cap)

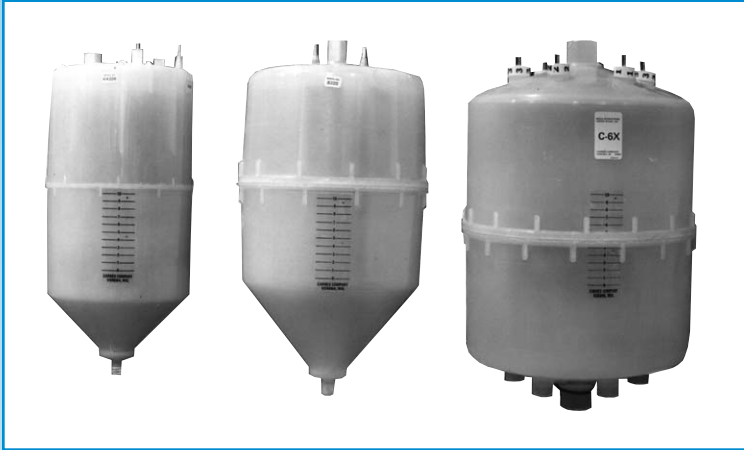
- Natural aluminum finish.
- Spun aluminum cover.
- Integral birdscreen.
- For use with VCDK 005-015C.
- See Carnes Submittal Sheet 26016 for dimensional details.

(Dimensions listed in inches)

Size	VXCAF	VXCAC
8	X	X
12	X	X

REPLACEMENT HUMIDIFIER CYLINDERS

All replacement cylinders are available from Carnes 48-Hour Stock Service. Steam cylinders are available for current and all previous models



Models Available		
HXCBAX145	HXCCB145	HXCBC6F
HXCBAX220	HXCCB220	HXCBC6X
HXCBAX380	HXCBB380	HXCBC61
HXCBAX500	HXCBB500	HXCCC62
HXCBAX600	HXCBB600	HXCBC63
HXCBAX700	HXCBB700	HXCBC64
HLCBAX220		HXCBC65
HLCBAX380		HXCBC12

ACCESSORY KIT



Model HLKA or HXKA

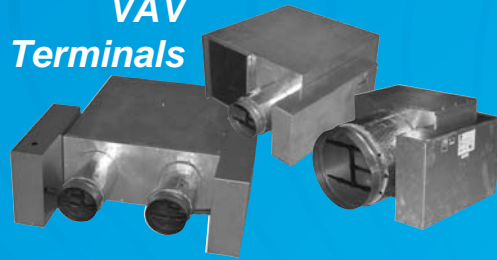
The Luxury Comfort Accessory Kit or standard Residential Accessory Kit should be purchased along with any residential steam humidifier. It includes the steam distributor pipe (available sizes 12, 18, or 24 inches), 10 feet of steam hose, 10 feet of condensate return line, a proportional control wall humidistat, a high limit humidistat, and a pressure differential type air flow switch.

Quality Built Products Since 1939

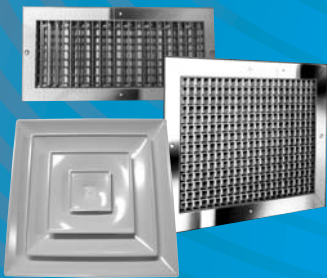
Vents & Fans



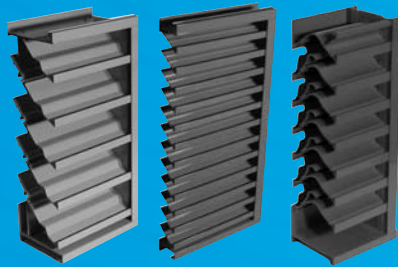
VAV Terminals



Registers, Grilles & Diffusers



Louvers & Penthouses



Energy Recovery



Fire & Smoke Dampers



Humidifiers



MEMBER



CARNES®

448 South Main Street
P.O. Box 930040
Verona, WI 53593-0040
Ph: 608-845-6411
Fax: 608-845-6504
Email: carnes@carnes.com

WWW.CARNES.COM