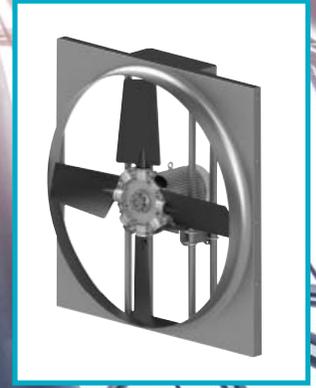
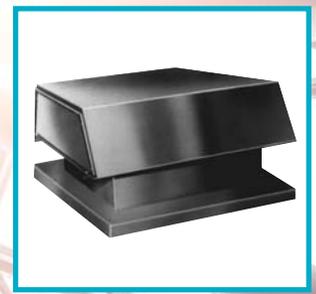


CARNES®

Your Single Source For All Your HVAC Needs



AIR MOVEMENT PRODUCTS

Catalog 900-0125

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March 2018

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Ventilator Express Service

2 Day

5 Day

10 Day

- Express service on hundreds of ventilators.
- All express power vents have motor and drive mounted.
 - Centrifugal Power Roof Ventilators
 - Square Inline Duct Fans
 - Centrifugal Wall Ventilators
 - UL-762 Restaurant Exhausters
 - Sidewall Propeller Fans

- Centrifugal Filtered Supply Fans
- Ceiling & Cabinet Fans
- Gravity Intake/Exhaust Hoods
- Dampers & Accessories

NOTES:

- All programs are subject to a maximum quantity.
- All programs are subject to specific sizes and constructions.

This catalog is a condensed sample of our ventilation line and only includes dimensional data. For our complete ventilation line, including performance data, go to

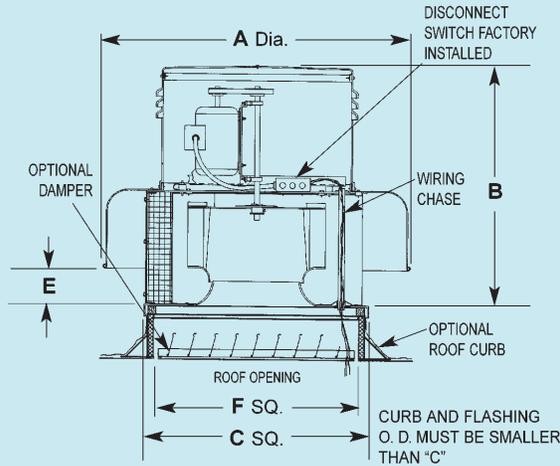
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DOWNBLAST ROOF EXHAUSTERS - BELT DRIVE

Model VEBK

STANDARD FEATURES

- Spun and shaped aluminum housing.
- Birdscreen — galvanized.
- Integral motor overload protection on all standard single phase motors.
- Disconnect switch on all motors except explosion proof.
- Adjustable pitch V-belt drives.
- Two belts furnished on 5 HP and above.
- Ventilated motor compartment with motor out of airstream.
- Non-overloading, backwardly inclined wheel.
- Isolated, suspended motor wheel-drive assembly.
- Spark resistant construction through size 24.
- Polished CRS fan shaft with rust inhibitive coating.
- Pillow block bearing L₅₀ = 200,000 hours.



DIMENSIONS LISTED IN INCHES

Unit Size	Unit Dia. A	Unit Depth B		Inside Curb Cap C	E	Roof Opening Square F	Roof Curb O.D. Square	Damper Size Square	Wt. Less Motor [Lbs]
		Standard Height	Extended Height						
06	25-3/4	21-7/8	26-5/8	15-1/2	2-7/8	11	14	10	30
08	25-3/4	23-1/4	28	15-1/2	4-1/4	11	14	10	30
10	27-3/4	23-7/8	28-5/8	17-5/8	3-1/2	13	16	12	35
12	27-3/4	25-1/2	30-1/4	17-5/8	5-1/8	13	16	12	35
15	32-3/4	28-1/2	33-1/4	20-1/2	6-1/2	16	19	15	50
18	37-3/4	29-5/8	34-3/8	25	7-3/4	20-1/2	23-1/2	19	65

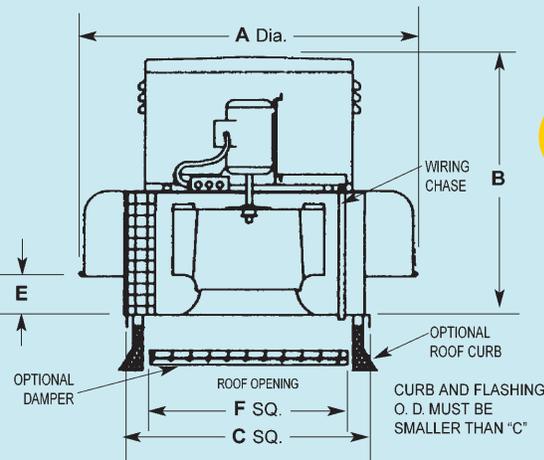
More sizes available. For additional sizes contact your local rep or distributor.

DOWNBLAST ROOF EXHAUSTERS - DIRECT DRIVE

Model VEDK

STANDARD FEATURES

- Spun and shaped aluminum housing, mill finish standard.
- Integral motor overload protection on all standard single phase motors.
- Disconnect switch on all motors except explosion proof.
- Ventilated motor compartment with motor out of airstream.
- Non-overloading, backwardly inclined wheel.
- Isolated, suspended motor wheel-drive assembly.
- Heavy gauge welded galvanized 1/2" x 1/2" birdscreen.
- Spark resistant construction.
- 2-speed motors include 2 separate disconnect switches.
- ECM motor available. Contact factory.



ECM Available



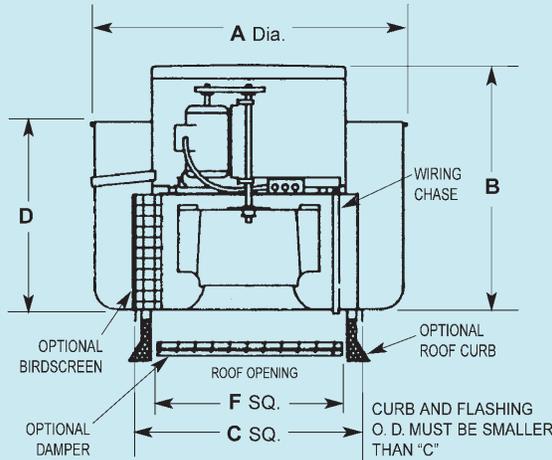
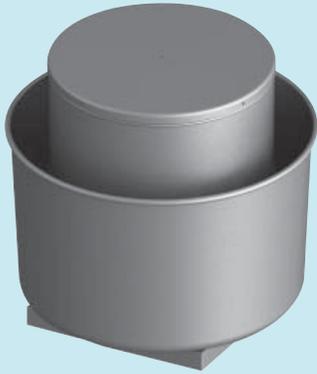
DIMENSIONS LISTED IN INCHES

Unit Size	Unit Dia. A	Unit Height B		Inside Curb Cap C	E	Roof Opening Square F	Roof Curb O.D. Square	Damper Size Square	Wt. Less Motor [Lbs]
		Standard Height	Extended Height						
06	25-3/4	13-3/8	21-7/8	15-1/2	2-7/8	11	14	10	30
08	25-3/4	14-3/4	23-1/4	15-1/2	4-1/4	11	14	10	30
10	27-3/4	20-3/8	23-7/8	17-5/8	3-1/2	13	16	12	35
12	27-3/4	22	25-1/2	17-5/8	5-1/8	13	16	12	35
15	32-3/4	28-1/2	33-1/4	20-1/2	6-1/2	16	19	15	50
18	37-3/4	29-5/8	34-3/8	25	7-3/4	20-1/2	23-1/2	19	65

More sizes available. For additional sizes contact your local rep or distributor.

UPBLAST ROOF EXHAUSTERS - BELT DRIVE

Model VUBK



STANDARD FEATURES

- Spun and shaped aluminum housing.
- Integral drain opening.
- Integral motor overload protection on all standard single phase motors.
- Disconnect switch on all motors except explosion proof.
- Adjustable motor sheave factory preset to requested RPM.
- Dual drive belts furnished on 5 HP and above.
- Ventilated motor compartment with motor out of airstream.
- Non-overloading, backwardly inclined wheel.
- Isolated, suspended motor wheel-drive assembly.
- Spark resistant construction through size 24.
- Polished CRS fan shaft with rust inhibitive coating.
- Pillow block bearing L₅₀ = 200,000 hours.

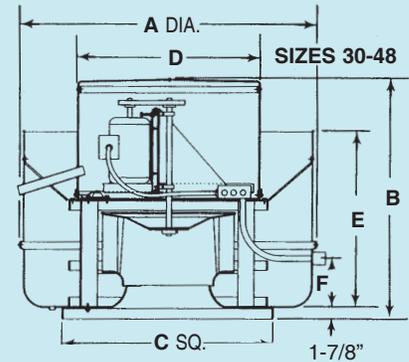
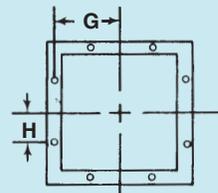
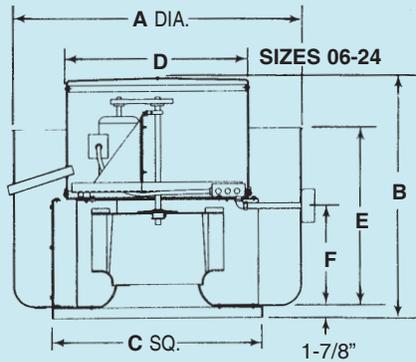
DIMENSIONS LISTED IN INCHES

Unit Size	Unit Dia. A	Unit Height B		Inside Curb Cap C	Outer Shroud Ht. D	Roof Opening Square F	Roof Curb O.D. Square	Damper Size Square	Wt. Less Motor [Lbs]
		Standard Height	Extended Height						
06	25-5/8	21-1/4	26	15-1/2	11-7/8	11	14	10	40
08	25-3/4	22-5/8	26-3/4	15-1/2	12-3/4	11	14	10	40
10	27-5/8	23-1/4	28	17-5/8	15	13	16	12	45
12	27-3/4	24-7/8	29-5/8	17-5/8	16-5/8	13	16	12	45
15	32-3/4	27-7/8	32-5/8	20-1/2	20-1/4	16	19	15	65
18	38-3/4	29-1/8	33	25	23-7/8	20-1/2	23-1/2	19	65

More sizes available. For additional sizes contact your local rep or distributor.

UPBLAST RESTAURANT EXHAUSTERS - BELT DRIVE

Model VRBK



STANDARD FEATURES

- UL 762 label.
- Disconnect switch with NEMA 3R raintight external wiring connection.
- Insulation is provided in the ventilated motor compartment with the motor out of the airstream.
- VRBK 06-24 can be wall mounted.
- Adjustable pitch V-belt drives.
- Two belts furnished on 5 HP and above.
- Spun and shaped aluminum housing.
- Integral drain opening.
- Integral motor overload protection on all standard single phase motors.
- Non-overloading, backwardly inclined wheel.
- Isolated suspended motor wheel-drive assembly.
- Spark resistant construction thru size 24.
- Polished CRS fan shaft with rust inhibitive coating.

DIMENSIONS LISTED IN INCHES

Size	A	B		C	D	E	F	Roof Opening	Curb O.D. Sq.	Wt. Less Motor [Lbs]	MOUNTING FRAME			Wall Opening Sq.
		Standard	Extended								O. D. Sq.	G	H	
06	25-5/8	23	27-3/4	15-1/2	20	14-3/8	6-1/2	11	14	40	15-3/8	6-15/16	4-11/16	12
08	25-3/4	24-3/8	28-1/8	15-1/2	20	14-3/8	7-7/8	11	14	40	15-3/8	6-15/16	4-11/16	12
10	27-5/8	25	29-3/4	17-5/8	20	16-5/8	8-1/2	13	16	45	17-1/2	8	5-3/4	14
12	27-3/4	26-5/8	31-3/8	17-5/8	20	16-5/8	10-1/8	13	16	45	17-1/2	8	5-3/4	14
15	32-3/4	29-5/8	34-3/8	20-1/2	24	20-1/4	13	16	19	65	20-3/8	9-7/16	7-3/16	17
18	38-3/4	30-3/4	35-1/2	25	26-1/2	23-7/8	14-1/8	20-1/2	23-1/2	85	24-7/8	11-11/16	7-7/16	22

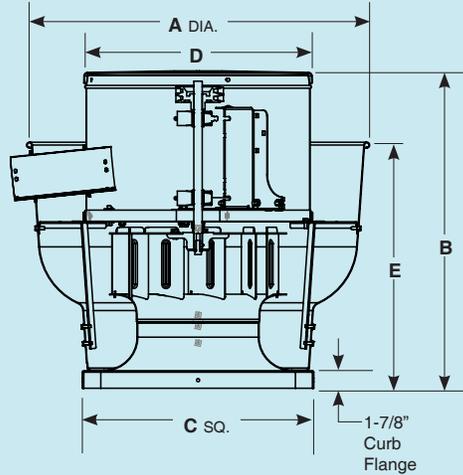
More sizes available. For additional sizes contact your local rep or distributor.

CENTRIFUGAL UPBLAST ROOF EXHAUSTERS - BELT DRIVE

Model VQBL

STANDARD FEATURES

- UL Listed for smoke control systems.
- Tested at the industry standard 500°F for 4 hours.
- Tested at 1000°F for 25 minutes.
- Disconnect is external to the fan and mounted in a weathertight enclosure (NEMA 3R Optional).
- Dual belt drives come standard.
- Adjustable drive sheave comes preset to the requested RPM.
- Motor and drive assembly mounted on vibration isolators.
- Wheel is non-overloading, backwardly inclined.
- Motor compartment is insulated from the exhaust air stream.
- Housing is spun and shaped of aluminum - mill finish is standard.
- Drain opening is integral to the spun shroud.
- Polished CRS shaft with rust inhibitive coating applied.



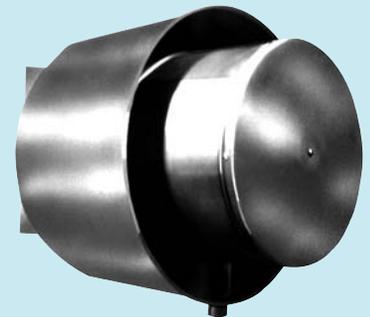
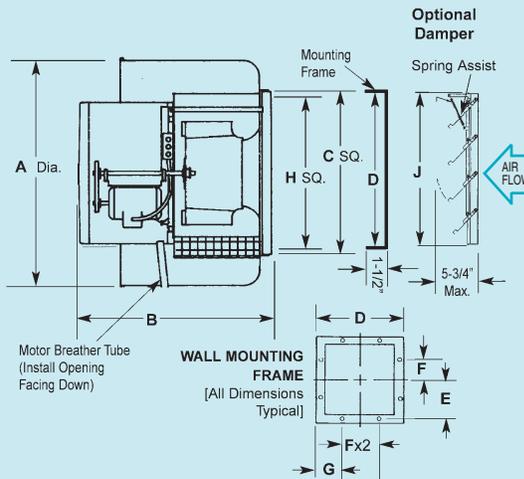
DIMENSIONS LISTED IN INCHES									
Size	A	B Standard	B Extended	C Curb Cap (Inside)	D	E	Roof Opening	Curb Outside Dimension	Unit Wt. [Lbs]
06	26-1/4	22-1/2	27-1/4	15-1/2	20	16-1/4	10	14	105
08	26-1/4	23	27-1/4	15-1/2	20	16-1/4	10	14	105
10	28-1/4	23-1/4	28	17-1/2	20	19	12	16	110
12	28-1/4	25	29-1/2	17-1/2	20	19	12	16	110
15	30	28-1/2	33	20-1/2	20	22	15	19	115
18	37-1/2	31-1/2	31-1/2	25	24	23	19-1/2	23-1/2	125

WALL MOUNTED EXHAUSTERS - BELT DRIVE

Model VWBK

STANDARD FEATURES

- Spun and shaped aluminum housing, mill finish standard.
- Integral motor overload protection on all single phase motors.
- Disconnect switch on all motors except explosion proof.
- Ventilated motor compartment with motor out of airstream.
- Non-overloading, backwardly inclined wheel.
- Isolated motor wheel-drive assembly.
- Spark resistant construction.
- Heavy gauge welded galvanized 1/2" x 1/2" birdscreen.
- Adjustable motor sheave factory preset to requested RPM.
- Wall mounting frame for simplified installation.
- Pillow block bearing L₅₀ = 200,000 hours.



DIMENSIONS LISTED IN INCHES												
Unit Size	Unit Dia. A	Unit Depth B		Mounting Cap C	Mounting Frame 1-1/2 x 1-1/2 x 1-1/2 Angle				Wall Opening Sq. H	Damper Size J	Wt. Less Motor [Lbs]	
		Standard B	Extended B		OD D	E	F	G				
06	25-5/8	23-1/4	28	15-1/2	15-3/8	6-15/16	4-11/16	3	12	12	45	
08	25-3/4	24-5/8	29-3/8	15-1/2	15-3/8	6-15/16	4-11/16	3	12	12	45	
10	27-5/8	25-1/4	30	17-5/8	17-1/2	8	5-3/4	3	14	14	50	
12	27-3/4	26-7/8	31-5/8	17-5/8	17-1/2	8	5-3/4	3	14	14	50	
15	32-3/4	29-7/8	34-5/8	20-1/2	20-3/8	9-7/16	7-3/16	3	17	17	75	
18	38-3/4	31-1/8	35-7/8	25	24-7/8	11-11/16	7-7/16	3	22	22	85	

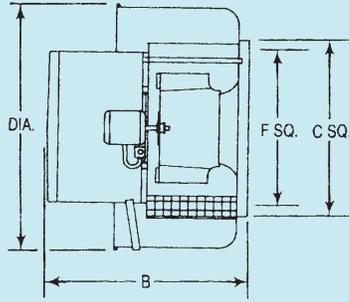
More sizes available. For additional sizes contact your local rep or distributor.

WALL MOUNTED EXHAUSTERS - DIRECT

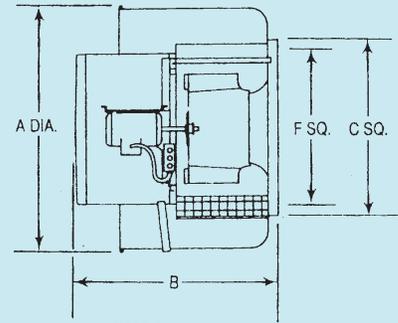
Model VWDK



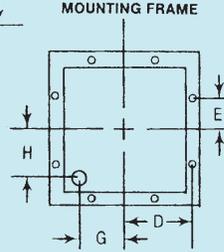
ECM Available



VWDK 06 - 08



VWDK 10 - 18



STANDARD FEATURES

- Spun and shaped aluminum housing.
- Integral motor overload protection on all standard single phase motors.
- Disconnect switch on all motors except explosion proof.
- Ventilated motor compartment with motor out of airstream.
- Non-overloading, backwardly inclined wheel.
- Isolated motor wheel-drive assembly.
- Spark resistant construction.
- Mounting frame.
- ECM motor available. Contact factory.

DIMENSIONS LISTED IN INCHES													
Unit Size	Unit Dia. A	Unit Depth B		Wall Mounting Cap C	Mounting Frame 1-1/2 x 1-1/2 Angle			Wall Opening Sq. F	Damper Size	Conduit Location		Wt. Less Motor [Lbs]	
		Std. B	Ext. B		OD Sq.	D	E			G	H		
06	25-5/8	23-1/4	23-1/4	15-1/2	15-3/8	6-15/16	4-11/16	12	12	3-3/4	5	45	
08	25-3/4	24-5/8	24-5/8	15-1/2	15-3/8	6-15/16	4-11/16	12	12	3-3/4	5	45	
10	27-5/8	25-1/4	25-1/4	17-5/8	17-1/2	8	5-3/4	14	14	5-3/8	5-3/8	50	
12	27-3/4	26-7/8	26-7/8	17-5/8	17-1/2	8	5-3/4	14	14	5-3/8	5-3/8	50	
15	32-3/4	29-7/8	34-5/8	20-1/2	20-3/8	9-7/16	7-3/16	17	17	6-7/8	5-7/8	75	
18	38-3/4	31-1/8	35-7/8	25	24-7/8	11-11/16	7-7/16	22	22	9-5/16	7-11/16	95	

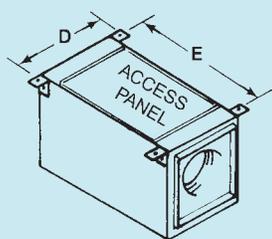
More sizes available. For additional sizes contact your local rep or distributor.

INLINE DUCT FANS - BELT DRIVE

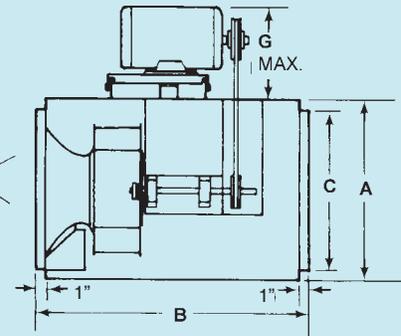
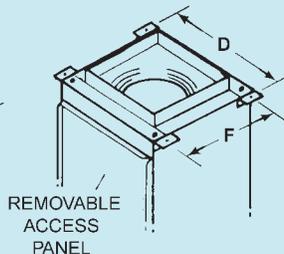
Model VIBK



HORIZONTAL INSTALLATION



VERTICAL INSTALLATION



STANDARD FEATURES

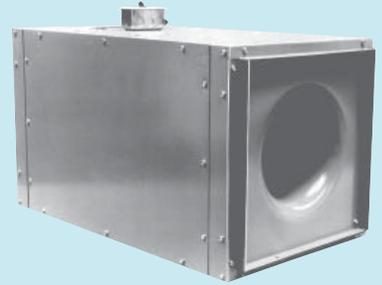
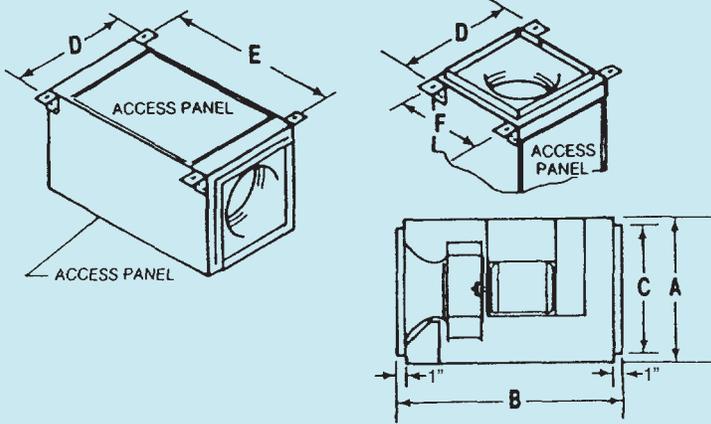
- Non-overloading, backwardly inclined wheel.
- Integral motor overload protection on all standard single phase motors.
- Spark resistant wheel thru size 24.
- Safety disconnect standard for all motors except explosion proof.
- Housing corrosion resistant heavy gauge steel.

DIMENSIONS LISTED IN INCHES									
Unit Size	A	B	C	D	E	F	G	Wt. Less Motor [Lbs]	Damper Size
06	14	28-5/8	12	16-1/2	25-1/8	12-1/2	12	65	12
08	14	28-5/8	12	16-1/2	25-1/8	12-1/2	12	65	12
10	18	32-1/8	16	20-1/2	28-5/8	16-1/2	12	80	16
12	18	32-1/8	16	20-1/2	28-5/8	16-1/2	12	80	16
15	24	34-7/8	22	26-1/2	31-3/8	22-1/2	12	95	22
18	28	36-1/8	26	30-1/2	32-5/8	26-1/2	12	145	26

More sizes available. For additional sizes contact your local rep or distributor.

INLINE DUCT FANS - DIRECT DRIVE

Model VIDK



STANDARD FEATURES

- Non-overloading, backwardly inclined wheel.
- Integral motor overload protection on all standard single phase motors.
- Spark resistant wheel thru size 24.
- Safety disconnect standard for all motors except explosion proof.
- Housing corrosion resistant heavy gauge steel.
- ECM motor available. Contact factory.

DIMENSIONS LISTED IN INCHES									
Unit Size	A	B	C	D	E	F	G	Wt. Less Motor [Lbs]	Damper Size
06	14	28-5/8	12	16-1/2	25-1/8	12-1/2	12	60	12
08	14	28-5/8	12	16-1/2	25-1/8	12-1/2	12	60	12
10	18	32-1/8	16	20-1/2	28-5/8	16-1/2	12	75	16
12	18	32-1/8	16	20-1/2	28-5/8	16-1/2	12	75	16
15	24	34-7/8	22	26-1/2	31-3/8	22-1/2	12	90	22
18	28	36-1/8	26	30-1/2	32-5/8	26-1/2	12	145	26

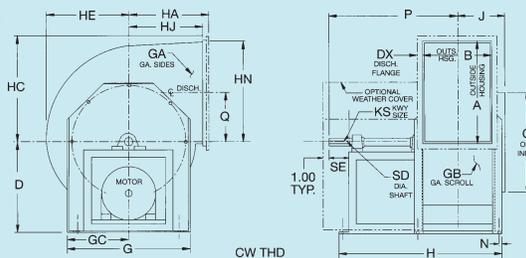
More sizes available. For additional sizes contact your local rep or distributor.

UTILITY SETS - BACKWARD INCLINED & FORWARD CURVED

Models VBBB/VFBB

STANDARD FEATURES

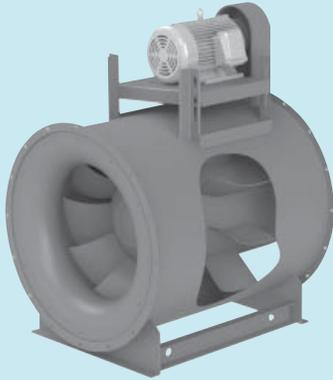
- VBB backward inclined or VFB forward curved utility sets
- AMCA 211 and AMCA 311 test codes for air moving devices
- Housing is heavy-gauge, continuously welded construction
- VBBB wheels are constructed of heavy-gauge steel and riveted to a steel shroud and backplate
- Wheels are statically and dynamically balanced
- Shafts are AISI 1040 or 1045 hot rolled steel, accurately turned, ground, polished and ring gauged for accuracy
- Bearings are heavy-duty, grease lubricated, anti-friction ball, self-aligning, pillow block type and selected for a min. avg. bearing life (AFBMA L-50) in excess of 200,000 hrs. at the max. fan RPM
- Motor sheaves are cast iron, and supplied as either variable pitch or fixed pitch



Size	A	B	C	D		DX	G	GA	GB	GC	H		HA	HC	HE	HJ	HN	J	KS		N	P		SD		SE		
				CL I	CL II						CL I	CL II							CL I	CL II		CL I	CL II					
12	13.00	9.75	13.25	14.50	17.63	1.00	16.00	14	14	8.00	24.50	32.00	9.75	13.94	10.56	9.25	12.94	7.44	25x.13	.25x.13	0.50	19.75	26.50	6.44	1.000	1.187	2.75	2.75
13	14.31	10.81	14.56	15.75	19.13	1.00	17.50	14	14	8.75	25.63	34.81	10.75	15.25	11.63	10.25	14.25	8.00	25x.13	.25x.13	0.50	20.31	29.56	7.13	1.000	1.187	2.75	3.38
15	15.88	11.94	16.19	17.75	19.38	1.00	19.00	14	14	9.50	28.75	36.00	11.94	16.81	12.88	11.44	15.81	9.06	25x.13	.25x.13	0.50	23.13	30.13	7.88	1.000	1.187	3.25	3.38
16	17.44	13.19	17.75	19.00	19.38	1.00	20.50	14	14	10.25	30.13	37.31	13.13	18.38	14.13	12.63	17.38	9.69	25x.13	.25x.13	0.63	23.75	30.75	8.69	1.000*	1.187	3.25	3.38
18	19.38	14.56	19.50	21.00	21.88	1.25	22.50	12	14	11.25	34.38	43.44	14.50	20.56	15.68	14.00	19.31	10.88	25x.13	.38x.19	0.63	27.94	36.81	9.63	1.187	1.437	3.75	4.00
20	21.19	15.94	21.38	22.75	22.75	1.25	25.00	12	14	12.50	35.75	44.81	15.81	22.38	17.31	15.31	21.13	11.56	.38x.19	.38x.19	0.63	28.63	37.50	10.56	1.437	1.437	3.75	4.00
22	23.56	17.69	23.75	25.50	25.50	1.25	27.25	12	14	13.63	40.75	47.13	17.69	24.75	19.06	17.19	23.50	12.44	.38x.19	.38x.19	0.88	27.63	38.38	11.75	1.437	1.437	3.75	4.00
24	25.94	19.44	26.06	28.00	28.00	1.25	29.75	12	14	14.88	43.50	48.81	19.50	27.13	21.00	19.00	25.88	13.31	.38x.19	.38x.19	0.88	29.00	39.25	12.94	1.437	1.687	3.75	4.00
27	28.63	21.38	28.50	30.50	30.50	1.50	33.00	12	14	16.50	47.38	53.00	21.44	30.06	23.19	20.94	28.56	14.25	.38x.19	.38x.19	0.88	31.69	43.13	14.25	1.437	1.687	4.00	4.63
30	31.81	23.81	31.63	27.50	27.50	1.50	36.13	10	12	18.06	52.88	56.00	23.81	33.25	25.75	23.31	31.75	15.50	.50x.25	.50x.25	1.13	40.38	44.44	15.81	1.937	1.937	3.75	4.63
33	35.13	26.06	34.75	30.00	30.00	1.50	38.88	10	12	19.44	56.13	61.75	26.25	36.56	28.38	25.75	35.06	16.63	.50x.25	.50x.25	1.13	42.50	49.69	17.50	1.937	2.187	3.75	5.25
36	38.75	28.88	38.50	33.50	33.50	1.50	43.75	10	12	21.88	64.56	64.56	29.00	40.13	31.50	28.50	39.63	18.00	.50x.25	.50x.31	1.13	50.56	51.06	19.25	1.937	2.437	4.75	5.25

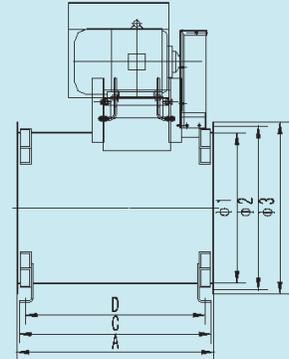
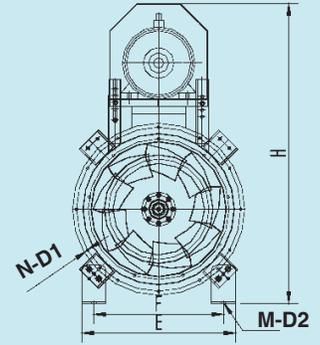
MIXED FLOW FAN

Model VMBL



STANDARD FEATURES

- Fans are tested in an AMCA approved laboratory for air and sound performance.
- Fan casing is constructed out of 14 gauge steel.
- Casing joints are continuously welded.
- Van design is integrated with casing design to maximize air-straightening effect.
- Impeller is constructed of fabricated steel of all welded construction.
- Polished CRS fan shaft with rust inhibitive coating.
- Bearings are lubricated via extruded lubrication lines.
- The V-belt drive consists of cast iron sheaves and anti-static conducting belts.



DIMENSIONS LISTED IN INCHES

Model	Wheel	1	2	3	A	C	D	E	F	N	D1	M	D2	H (Max)	Weight [Lb]
12	15.75	18	19	21	24	23	22	19	16	8	0	4	1	39	130
15	17.75	20	22	23	28	27	25	21	18	12	0	4	1	42	157
16	19.75	22	24	25	29	28	26	23	19	12	0	4	1	46	201
18	22.0	25	26	28	33	29	27	20	16	12	0.472	4	0.591	48	254
20	24.25	28	30	31	36	32	31	24	20	12	0.472	4	0.591	55	355
23	28.0	32	34	35	38	34	32	28	24	16	0.472	6	0.591	57	403
27	31.5	36	38	39	42	39	37	31	27	16	0.551	6	0.787	63	542
30	35.5	40	42	43	48	44	42	35	31	16	0.551	6	0.787	67	644
33	39.5	44	46	48	52	47	45	39	34	20	0.551	6	0.787	72	847
36	44.0	50	52	54	58	55	53	43	35	20	0.551	6	0.787	81	1164
40	49.25	56	58	60	64	60	58	48	40	20	0.551	6	0.787	87	1495

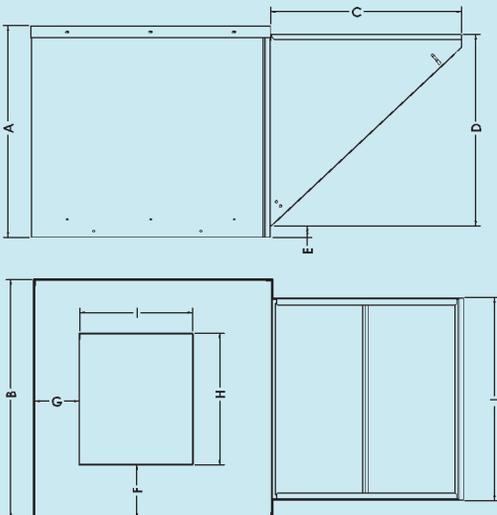
FILTERED SUPPLY CENTRIFUGAL — BELT DRIVE

Model VNBL



STANDARD FEATURES

- Available in sizes from 10" to 20" with CFM capabilities ranging from 1,000 to 13,000 and static pressures up to 1.5 inches W.G.
- Double width, forward curved blowers are designed to maximize efficiency.
- Washable aluminum filters are standard to provide long operational life.
- All VNBL units are licensed to bear the AMCA seal to assure accurate performance specifications. Testing is performed in an AMCA Accredited Laboratory.
- VNBL units incorporate the Carnes SLIDE-RITE design. This drastically reduces the amount of fasteners required while resulting in an easy to maintain, durable, aesthetically superior design.
- The optional UL/cUL 705 listing insures that the units meet strict manufacturing and operational safety guidelines.
- Permanent, washable 1" aluminum filters are standard.
Fan shaft is ground and polished and mounted in heavy-duty, permanently lubricated and sealed ball bearings with minimum average life $L_{50} = 200,000$ hours at operating speed.



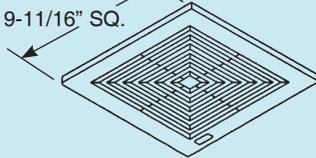
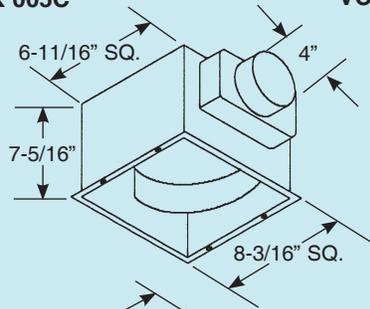
DIMENSIONS LISTED IN INCHES

Size	A	B Sq.	C	D	E	F	G	H	I	J
10	24-1/2	29-3/4	21-3/4	21-1/8	1-7/8	8-7/8	9-1/4	13-7/8	11-5/8	23-3/4
12	31-1/2	33-3/4	29	28-1/8	1-7/8	9-1/8	10-1/8	15-3/4	13-5/8	27-3/4
15	31-1/2	33-3/4	29	28-1/8	1-7/8	7-5/8	9-7/8	18-7/8	16-1/8	27-3/4
18	35-1/2	39-3/4	32-1/8	32-1/8	1-7/8	9	13-1/4	22-1/8	19-1/8	33-3/4
20	47-1/2	45-3/4	40-1/8	44-1/8	1-7/8	11-1/2	14-1/2	23	25	39-3/4

BATHROOM EXHAUST FANS

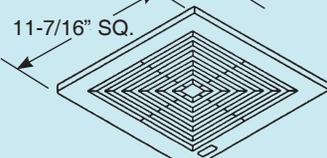
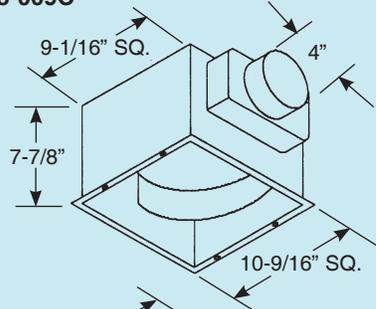
Model VCDK

VCDK 005C

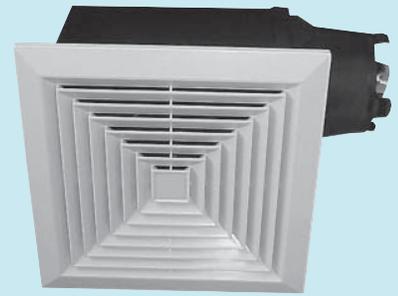


WHITE POLYMERIC GRILLE

VCDK 008-009C



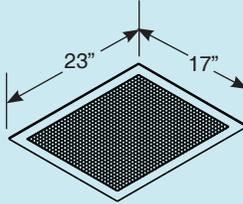
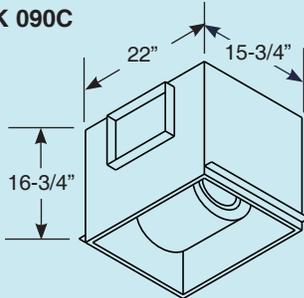
WHITE POLYMERIC GRILLE



STANDARD FEATURES

- High performance blowers.
- Discharge damper.
- Simplified installation.
- Designer styled grilles.
- UL listed.
- AMCA air and sound licensed.

VCDK 090C



VCDK

Unit Size	CFM @ 0.0" SP	Sones @ 0.25" SP	Nominal RPM	Volts	Watts	Amps
5	72	2.1	1300	120	27	0.23
8	84	2.6	1500	120	35	0.29
9	115	2.3	1330	120	47	0.38
090	908	5.6	1012	120	384	7.70

More sizes available. For additional sizes contact your local rep or distributor.

Model VCDD

VCDD

Unit Size	CFM @ 0.0" SP	Sones @ 0.25" SP	Nominal RPM	Volts	Watts	Amps
5	72	2.1	1300	120	27	0.23
9	87	2.5	840	120	26.9	0.30
10	136	1.3	640	120	77	1.10
15	181	2.2	710	120	102	1.40
20	231	2.3	740	120	131	1.80
25	272	2.9	830	120	169	2.20
30	312	3.3	905	120	207	2.70

More sizes available. For additional sizes contact your local rep or distributor.

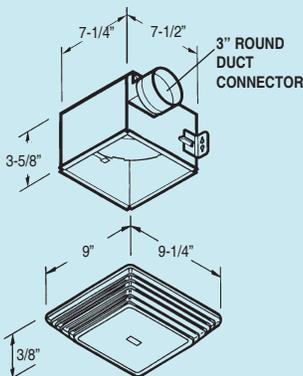
STANDARD CONSTRUCTION

- Super quiet operation.
- High performance blowers.
- Removable access panel.
- Inlet/outlet duct connections.
- Discharge damper.
- Simplified installation.
- Designer styled grilles.
- AMCA air and sound licensed.
- UL listed.



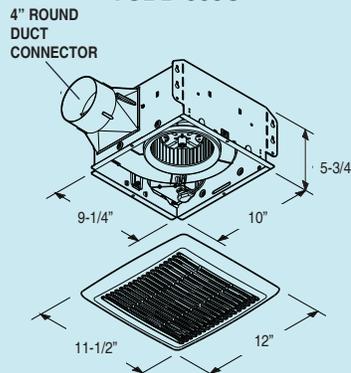
Image is indicative of product family. Actual product may vary.

VCDD 005C



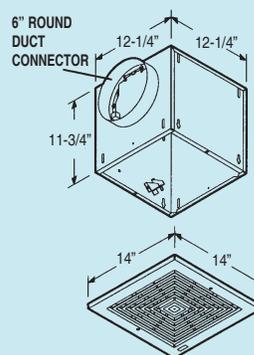
MATTE WHITE POLYMER GRILLE

VCDD 009C



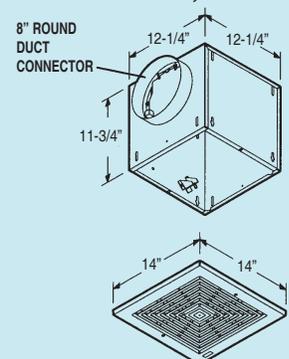
MATTE WHITE POLYMER GRILLE

VCDD 010C & 015C



MATTE WHITE POLYMER GRILLE

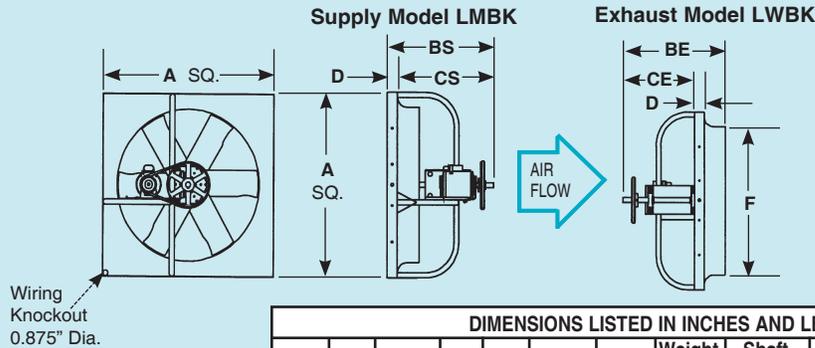
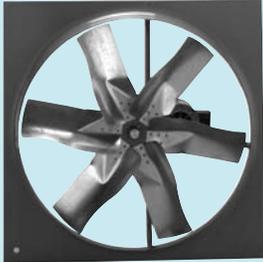
VCDD 020C, 025C & 030C



MATTE WHITE POLYMER GRILLE

WALL MOUNTED PROP FANS - BELT DRIVE

Models LMBK/LWBK



Wiring Knockout
0.875" Dia.

DIMENSIONS LISTED IN INCHES AND LBS												
Fan Size	A Sq.	BE	BS	CE	CS	D	Weight Less Motor	Shaft Dia. (Inches)	Drive Frame Sch. 40	Max. Motor Frame	Wt. Less Motor [Lbs]	
20	26	23-5/8	20	18	17-7/8	2-1/8	30	0.75	1" Dia.	145T	30	
24	30	23-5/8	20	18	17-7/8	2-1/8	36	0.75	1" Dia.	145T	36	
30	36	27-5/8	23	21	20-7/8	2-1/8	60	1.00	1" Dia.	145T	60	
36	42	29-5/8	25	23	22-7/8	2-1/8	75	1.00	1" Dia.	215T	75	
42	48	29-7/8	25	23	22-7/8	2-1/8	96	1.00	1" Dia.	215T	96	
48	54	29-7/8	25	23	22-7/8	2-1/8	116	1.00	1" Dia.	215T	116	

STANDARD SPECIFICATION AND CONSTRUCTION

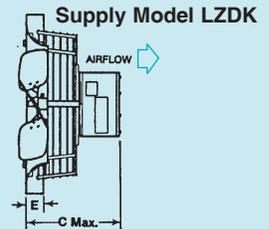
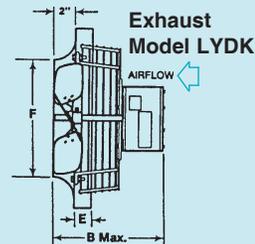
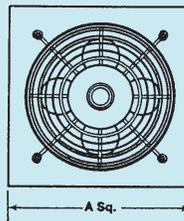
- Propeller:** Die formed galvanized steel blades (alum. optional). Statically and dynamically balanced.
- Panel:** Single piece galvanized steel fan panel/venturi with welded corners.
- Drive Frame:** All welded schedule 40 steel pipe frame.
- Finish:** Galvanized standard.
- Fan Shaft:** Precision turned, ground and polished steel with corrosion inhibiting coating - keyed to the propeller hub and the drive pulley.
- Bearings:** Cast iron self aligning pillow block ball bearings with lube fittings. Minimum average life 200,000 hours (L50 = 200K).
- Drives:** Cast iron construction sized for min. 150% of installed motor HP. Motor sheave is adjustable.
- Belts:** Oil resistant and static free are sized for minimum 25,000 hours average life.
- AMCA Licensed:** Certified Ratings Seal for both sound and air performance.
- Factory Run Test:** For quality assurance and reliability. Factory pre-set fan RPM.

WALL MOUNTED PROP FANS - DIRECT DRIVE

Models LYDK/LZDK



ECM Available



DIMENSIONS LISTED IN INCHES						
Fan Size	A Sq.	B	C	E	F	Wt. Less Motor [Lbs]
9-10	16	11	10	1-1/2	10-1/4	20
11-12	16	11	10	1-1/2	12-1/4	20
13	20	12	11	1-1/2	14-1/4	25
15-16	20	13	12	1-1/2	16-1/4	30
17-18	24	13	12	1-1/2	18-1/4	35
19-20	24	13	12	1-1/2	20-1/4	40

STANDARD SPECIFICATIONS AND CONSTRUCTION

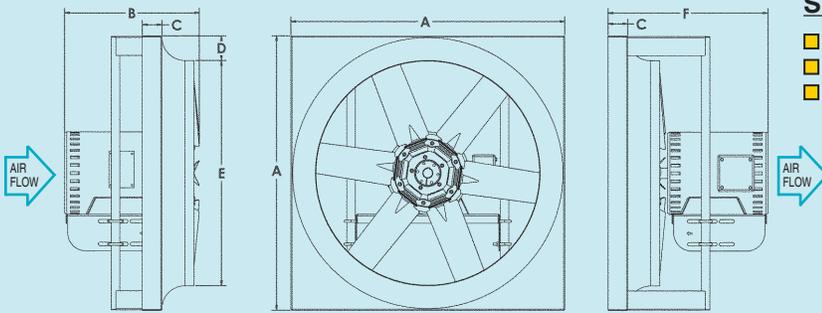
- Direct drive with integral motorside guard - meets OSHA requirements.
- One piece fan panel/venturi with prepunched mounting holes.
- Panel material - galvanized steel.
- OSHA motorside guard - welded steel wire, finish to match panel.
- Motors - 115/1/60 ODP speed controllable - permanent split capacitor.
- Neoprene vibration mounts between motor mounts and fan panel.
- Propeller statically and dynamically balanced.
- Aluminum 3 or 4 blade propeller with steel hub and set screws.
- Motors factory wired to conduit/wiring box.
- Panel flanges turned to the motorside (both exhaust & supply) for easy mounting.
- Conduit knockout in fan panel for field wiring motorized damper.
- Factory run-test for dependable operation.
- ECM motor available. Contact factory.

WALL PROPELLER FANS

Models LJDL/LKDL

Model LJDL — Exhaust

Model LKDL — Supply

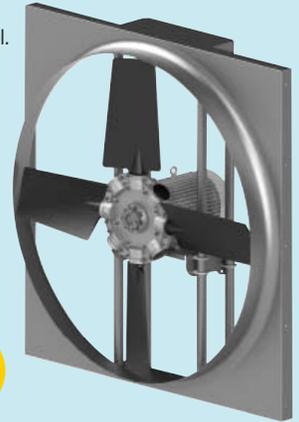


STANDARD FEATURES

- One piece galvanized steel fan panel.
- Precision spun orifice.
- Aluminum or glass reinforced polypropylene blades.

OPTIONS

- Wall box
- Wall collar
- OSHA guard (hinged or flat)
- Motorside guard
- Weather hood



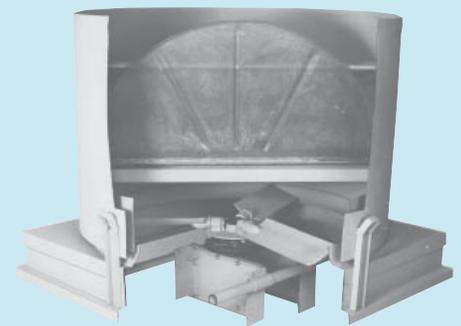
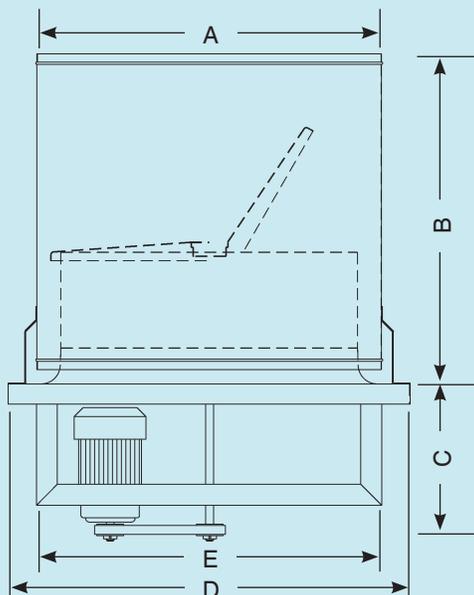
ECM Available

Available in sizes 10" through 54" with aluminum or glass reinforced polypropylene blades, these fans are manufactured for durability and economy. The all welded pipe frame motor support will accommodate a wide range of motor types. Capacities range from 300 to 39,000 CFM and up to 1.25" static pressure.

Size	DIMENSIONS LISTED IN INCHES						METAL GAUGE			
	A	Max. B	C	D	E	Max. F	Main Panel	Motor Mount	Brackets	Pipe
10	16	12.5	1.50	2.875	10.25	15	16	12	14	3/4" SCH. 40
12	16	12.5	1.50	1.875	12.25	15	16	12	14	
16	20	15.0	1.50	1.875	16.25	17	16	12	14	
18	24	17.0	1.50	2.875	18.25	19	16	12	14	
20	24	17.0	1.50	1.875	20.25	19	16	12	14	
24	30	17.0	2.00	2.75	24.5	25	16	12	14	3/4" SCH. 40
30	36	17.0	2.00	2.5	31.0	25	16	12	14	1" SCH. 40
36	42	20.0	2.00	2.75	36.5	25	16	12	14	
42	48	20.0	2.00	2.75	42.5	25	16	12	14	1 1/4" SCH. 40
48	54	22.0	2.00	2.75	48.5	25	16	10	12	
54	60	22.0	2.75	2.25	55.0	25	16	10	12	

UPBLAST PROPELLER FANS

Model LUBK



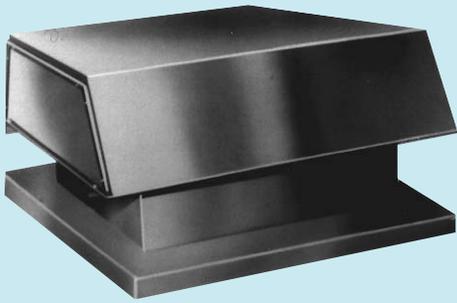
STANDARD FEATURES

- Heavy gauge galvanized steel panel on all sizes.
- All welded support structure of 10 gauge angle.
- Motor/bearing plates of minimum 10 gauge galvanized steel.
- Heavy gauge galvanized steel windband.
- Galvanized rain channel drains water from damper area onto roof.
- Three and four cast/airfoil aluminum blades.
- Single belt adjustable pitch sheaves through 5 HP.
- Two belt adjustable pitch sheaves through 10 HP.
- Keyed, turned, ground, and polished shafts.
- Bearings designed for minimum 200,000 hour life.

Model LUBK	DIMENSIONS IN INCHES							Avg. Wt.
	A	B	C	D	E	F	G	
24	29	28-1/2	16	36	30	34	31	145
30	35-1/2	31-1/2	16	42	36	40	37	170
36	41	34-1/2	16	48	42	46	43	200
42	47	37-1/2	20	54	48	52	49	225
48	53	40-1/2	20	60	54	58	55	270

GRAVITY VENTILATORS

Models GI & GA



Models GI - Gravity Intake Ventilator

Models GE - Gravity Exhaust Ventilator

STANDARD FEATURES

- Aluminum or steel construction.
- Integral galvanized birdscreen.
- Welded curb and throat seams.
- GI units feature enlarged hood.
- Gauges of construction vary with size of unit.

Model GI gravity intake ventilators are designed for supplying air via a “pull thru” method into the space or building.

The hood free area is double the throat free area, creating a 2:1 hood to throat ratio (Overall ratio is 3:1). The oversized hood makes this unit ideal for intake applications. These hoods should be sized with an approximate intake velocity of 600 fpm and with a corresponding throat velocity of 1200 fpm to help reduce moisture entrainment thru the hood.

These hoods are available in either galvanealed construction (Model GIGB) or aluminum construction (Model GIAB).

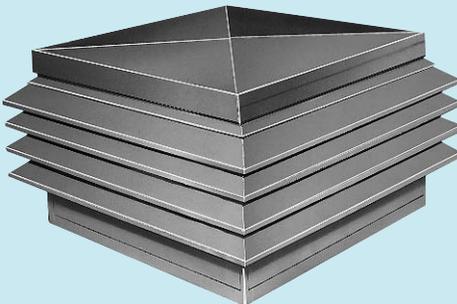
Model GE gravity exhaust ventilators are designed for exhausting air via “push thru” method from a space or building.

The hood free area and throat free area are equal, making this hood ideally suited for exhaust applications. If this hood is used for intake applications, it should be sized using an approximate intake/throat velocity of 600 fpm to help reduce moisture entrainment thru the hood.

These hoods are available in either galvanealed steel construction (Model GEGB) or aluminum construction (Model GEAB)

EXTRUDED ALUMINUM LOUVERED VENTILATORS

Model GLAB



Model GLAB - Extruded Aluminum Louvered Intake or Exhaust Ventilator

The Model GLAB gravity hoods feature an extruded aluminum louvered construction with fully welded mitered corners and integral birdscreen.

These hoods are designed for either intake or exhaust and feature 1:1 intake/throat ratio. When used for intake applications, it should be sized using an approximate intake/throat velocity of 600 fpm to help prevent moisture entrainment through the louvers.

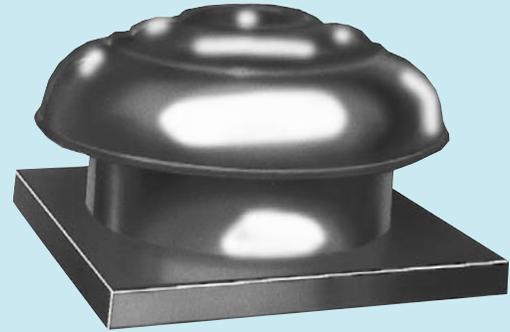
STANDARD FEATURES

- Extruded aluminum construction.
- Fully welded mitered corners.
- Integral birdscreen.
- Integral curb base.

SPUN ALUMINUM INTAKE/EXHAUST VENTILATOR

The GSAA spun aluminum gravity ventilators feature an aluminum windband, curb cap with welded corners and integral birdscreen.

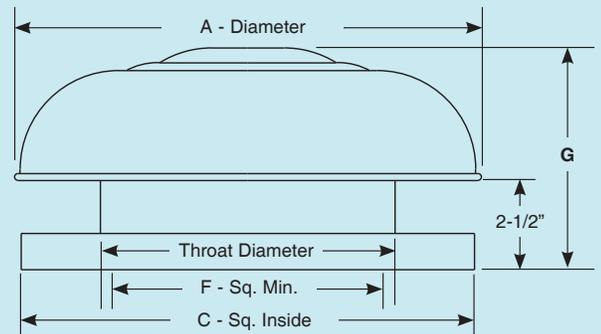
These hoods are designed for either intake or exhaust and feature a 1:1 intake/throat ratio. When used for intake applications, it should be sized using an approximate intake/throat velocity of 600 fpm or less to help prevent moisture entrainment through the hood.



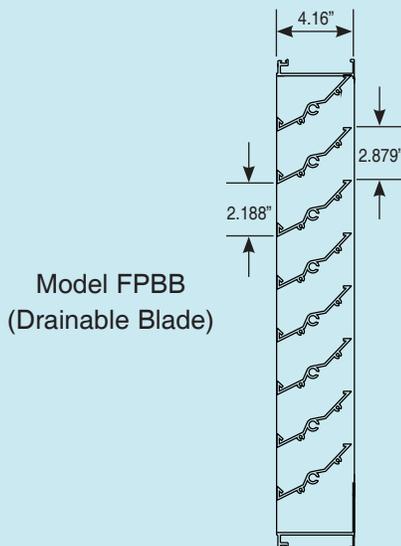
STANDARD FEATURES

- Spun aluminum construction.
- Integral welded curb cap.
- Integral birdscreen.

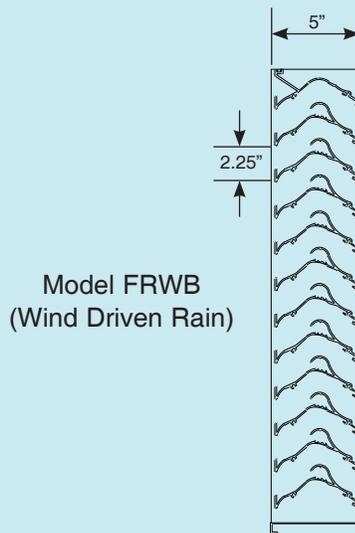
Model GSAA	Throat Dia.	Throat Area	Inlet Area	A	G	C	F
12	13-1/4	0.96	1.62	21-3/4	8-7/8	20-1/2	16
16	16-1/4	1.44	2.23	25-3/4	10-1/4	25	20
22	22	2.64	3.34	33-1/8	12-1/4	28-1/2	24
28	28-3/4	4.51	5.23	42-1/4	13-5/8	37	32
32	32	5.58	8.19	50-1/4	18-3/8	43	38
38	38	7.87	10.16	57-1/2	21-1/8	49	44
46	46	11.54	13.86	68-1/4	25-1/2	57	52
52	52	14.75	18.86	78-1/2	30-1/4	57	52
60	60	19.64	19.64	84-3/4	32-1/4	67	62



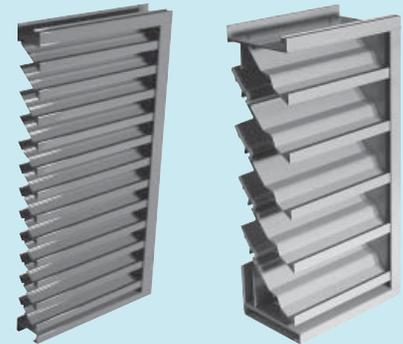
STATIONARY AND ADJUSTABLE LOUVERS



Model FPBB
(Drainable Blade)



Model FRWB
(Wind Driven Rain)



OPTIONS

- Special shapes.
- Filter racks.
- Sill extensions.
- Blade and jamb seals.
- Manual operators.
- Motor operators.
- Variety of screens.
- Jackshafting.

FINISHES

- Prime Coat
- Kynar
- Baked enamel
- Anodize

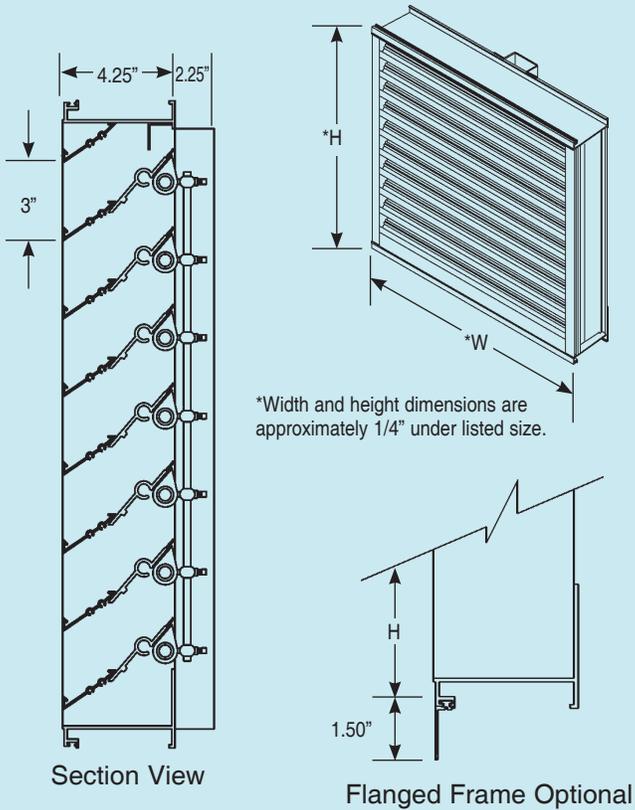
COMPLETE LOUVER LINE

- Standard (flat blade, J blade).
- Drainable blade.
- Combination louver/dampers.
- Sight proof (Y blade, chevron blade).
- Thin line.
- Wind driven rain.
- Hurricane.

Louvered Penthouses are available with several of the Carnes louver models.

COMBINATION LOUVER/DAMPER

Model FPJB



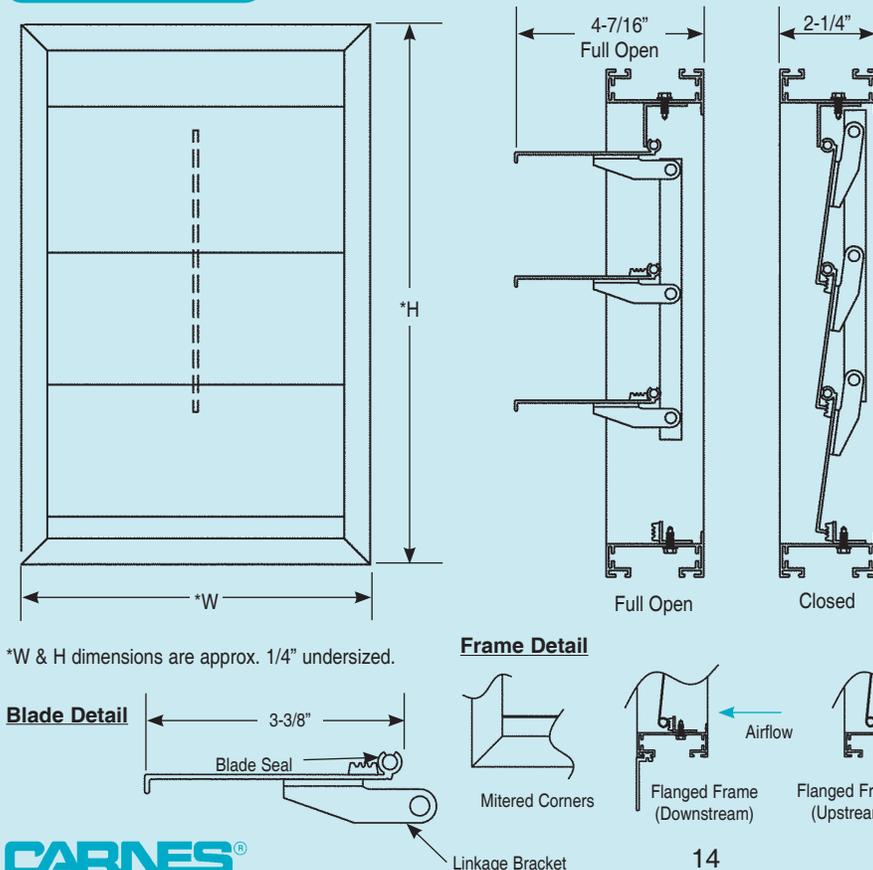
STANDARD SPECIFICATIONS

- Frame:** .081 extruded aluminum, 4.25" deep
- Adjustable Blade:** .125 extruded aluminum
- Fixed Blade:** .081 extruded aluminum positioned on a 37° angle on approximately 3.0" centers
- Finish:** mill aluminum (standard)
- Screen:** 3/4" x .051" flattened aluminum in removable frame. Screen is mounted as standard on inside (rear) as looking from exterior of building.
- Maximum Panel Size:** 60"w x 120"h single section. Factory assembled multi-section max: 96"w x 120"h. Larger sizes are field assembled.
- Minimum Panel Size:** 12"w x 12"h

Note: Drainable blade louvers should be limited to 10' maximum section widths (no more than 10' between vertical downspouts) to enable the drainable design to function effectively.

ALUMINUM COUNTERBALANCED BACKDRAFT DAMPER

Model FAKA



Application and Design

The FAKA is a vertical or horizontal mounted backdraft damper that is designed to allow airflow and prevent reverse airflow.

Ratings

- Pressure:** 3.5" w.g.
- Velocity:** 4000 fpm
- Temperature:** 180°F

STANDARD FEATURES

- **Frame:** .060" thick extruded alum.
- **Blades:** .060" thick extruded alum. with counterbalance weights
- **Blade Seal:** EDPM rubber
- **Linkage:** 1/2" x 1/8" alum. bar (in airstream)
- **Axles:** zinc plated steel
- **Brushings:** nylon

Size Limitations

- **Minimum Size:** 6"w x 6"h
- **Maximum Single Section Size:** 48"w x 48"h

Multiple Sections

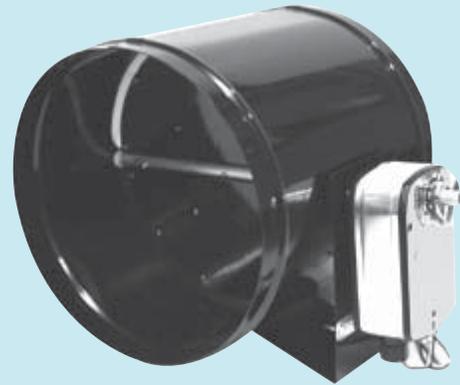
- Exposed mullions
- Aluminum sub-frame

Finishes

- Polyester powder coat (consult factory)

Options and Accessories

- Flange frame
 - Upstream
 - Downstream
- 1" ■ 1-1/2" (default) ■ 2" ■ 3"



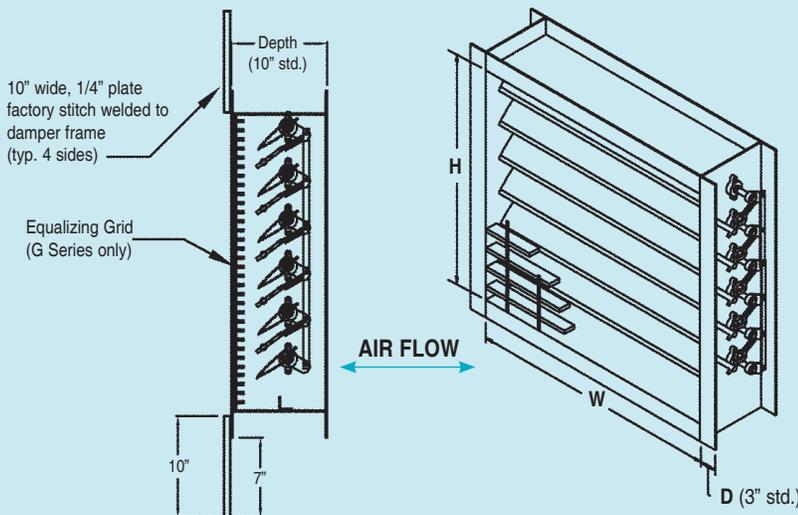
STANDARD SPECIFICATIONS AND CONSTRUCTION

- 3V blade (FDCB, FDHB, FDNB, FDQB).
- Airfoiled blade (FAAA, FABA, FACA, FADA).
- Round (FAHA).
- Aluminum or galvanized construction.
- Parallel or opposed blade.

OPTIONS

- PVC blade seals.
- Stainless steel jamb seals.
- Manual or motor operators.
- Epoxy or heresite coating.
- Motors internally or externally mounted.
- Some models available with insulated blade.

BLAST RESISTANT DAMPER



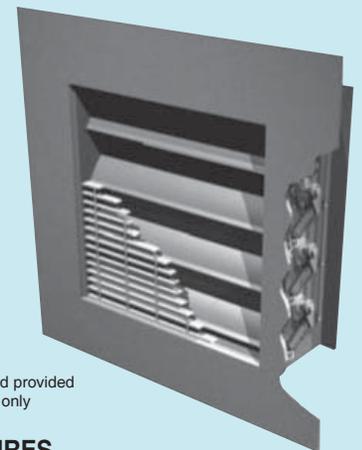
(BLAST #1 ARRANGEMENT SHOWN)

Max. Velocity: 4000 FPM

*Actual inside dimensions (not undersized).

**The W dimension is ALWAYS parallel with the damper blade length.

Optional: Damper above is shown without flange for induct mounting.



Note: Equalizing Grid provided with G Series only

OPTIONS

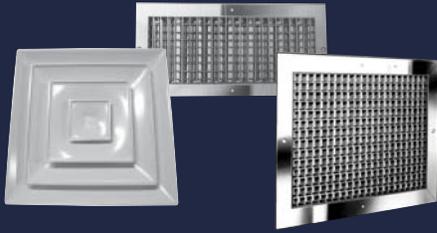
- Blade seals (EDPM)
- Blade seals (Silicone)
- 304 stainless steel construction (ASTM-A240, SA240, AMS5513)
- 316 stainless steel frame & blades (some parts may not be 316 ss) (ASTM-A240, SA240, AMS 5513)
- Powder coating, select color
- Blast deflector on jambs
- Equalizing grid
- Omit flange (in duct mount)

STANDARD FEATURES

- **Frame:** 3" x 10" x 3", 10 ga carbon steel channel with 10" wide x 1/4" faceplate (ASTM A1011 CS Type B & A569CQ)
- **Blades:** 10 ga carbon steel double skin airfoil
- **Blade Lock:** latch mechanism to lock blades in close position after blast (exothermic reaction)
- **Axles:** Ø 3/4" solid A36 steel on 6" centers
Ø 1" solid A36 steel on 6" centers
- **Linkage:** 3/16" thick x 3/4" wide bars
- **Bearings:** two hole flange ball bearing (type II)
- **Finish:** zinc rich primer (ready to paint)
- **Size Limitations:** minimum size - 8"w x 8"h
maximum single section - 48"w x 60"h (see graph for psi limitations) *For factory assembled multi-section size limitations, consult factory*
- **Specify:** blast arrangement and reflective pressure (psi)

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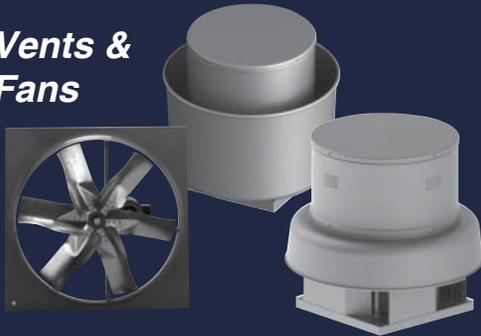
Registers, Grilles & Diffusers



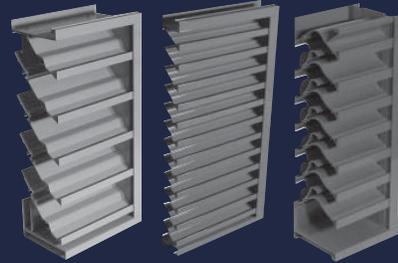
VAV Terminals



Vents & Fans



Louvers & Penthouses



Energy Recovery



Humidifiers



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