Greenheck Quick Delivery

Stock & Quick Build Catalog

Volume 26

GREENHECK
Building Value in Air.

June
2017

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GREENHECK
Building Value in Air.

Roof & Sidewall Mounted

UL/cUL 705 Power Ventilators
E40001 - G and GB

UL/cUL Power Ventilators for Smoke Control Systems MH11711 - GB

c UL US LISTED

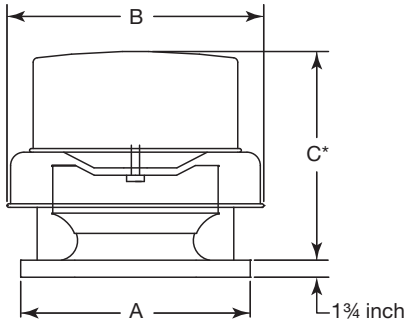
UL/cUL Listed 705 is standard on In Stock models

Model G and GB are AMCA Licensed for Sound and Air Performance

Model	Best Available Program
G-060 through 095, 099 through 143	In Stock
GB-071 through 200, 240 and 300	
G-097 and 098 163 and 203	1 Day
GB-220, 260, 330 through 540	
High Pressure GB 101HP through 360HP	

VARI-GREEN Motor

Select sizes and models with the Vari-Green® motor are available in stock.



Model G Direct Drive and GB Belt Drive

Centrifugal downblast fans are designed for clean air exhaust applications requiring roof mounting.

Quick Delivery / Quick Build Performance

G capacities range from 50 to 6,600 cfm and 2.75 in. wg of static pressure.
GB capacities range from 70 to 44,700 cfm and 2.75 in. wg of static pressure.

Standard Construction	G	GB
Housing - aluminum	■	■
Wheel - backward-inclined, aluminum	■	■
Birdscreen - galvanized	■	■
Corrosion-resistant fasteners	■	■
NEMA-1 disconnect switch	■	■
Ball bearing motor - 1/4 hp and larger	■	■
Double-studded vibration isolators	■	■
Three speed motor - sizes 060 through 095	■	
Lifting lugs		■
Adjustable motor pulley		■

Options and Accessories	Stock	G	GB
Vari-Green® motor - 80% turndown, 85% efficient *Available as standard on select sizes*	✓	■	
Damper	✓	■	■
Hinged curb cap with cables	✓	■	■
Roof curb	✓	■	■
Roof curb accessories - seals, adaptors, extensions		■	■
Speed control	✓	■	
Birdscreen - aluminum, stainless steel		■	■
Tie-down points		■	■
NEMA rated disconnect switch		■	■
Dual drives			■
Relubricatable bearings			■
Decorative or protective powder coating		■	■
Certified for high wind and seismic applications		■	■
UL/cUL Listed Power Ventilators		■	■
UL/cUL Listed Power Ventilators for Smoke Control Systems			■

Dimensions for G, GB

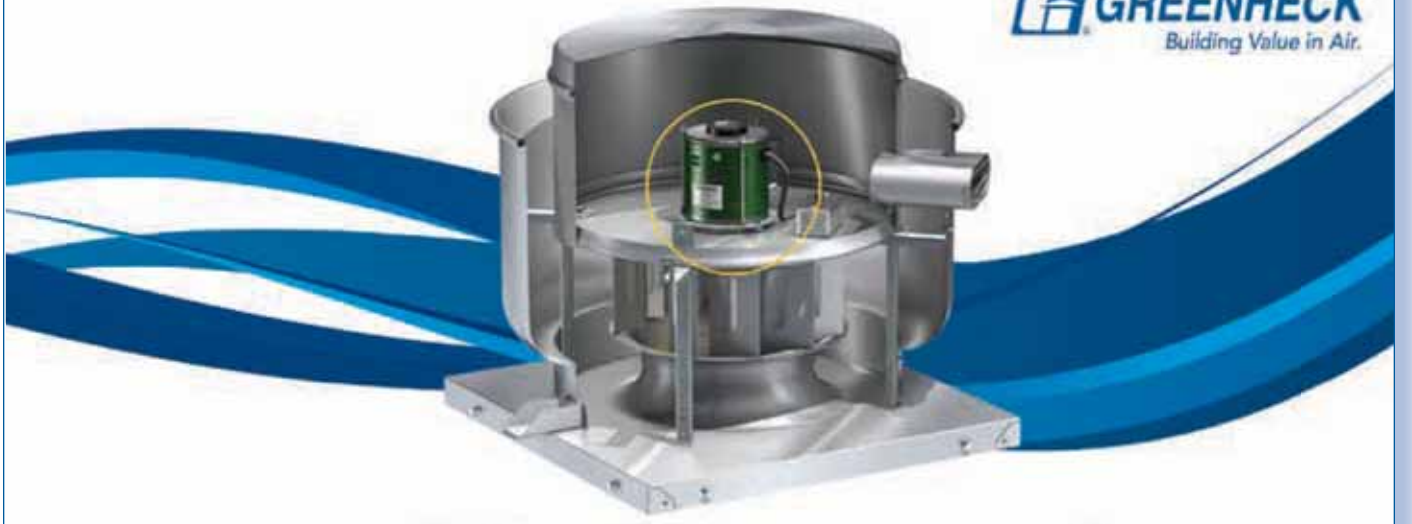
Model Size	A	B	C*	Nominal Sq. Sizes		
				Damper	Roof Curb	Roof Opening
060, 065, 070, 075	17	19⅜	12⅛	8	17	10½
080, 085, 090, 095	17	21¾	14⅝	10	17	12½
071, 081, 091, 097, 098, 099, 101, 103, 121, 123	19	24⅜	23¾	12	19	14½
131, 133	19	28⅜	23¾	12	19	14½
141, 143, 161, 163	22	28⅜	23¾	16	22	18½
180, 183, 200, 203	30	35½	28	18	30	20½
220, 240	34	42¾	31½	24	34	26½
260, 300	40	50	36	30	40	32½
330, 360	46	58¾	38½	36	46	38½
420	52	65¼	44	42	52	44½
480	58	73¾	47¼	48	58	50½
500, 540	64	83	50¾	54	64	56½

All dimensions are in inches. Dimension A given is the inside dimension of the curb cap.
*May be greater depending on motor.

GREENHECK Building Value in Air.

For comprehensive product information, including performance, access the product catalog found on www.greenheck.com or contact your local Greenheck representative.

GREENHECK
Building Value in Air.



efficient air

Save energy with Vari-Green® motors.

The world's best-performing fans just got even more efficient — and cost-effective — thanks to Greenheck's high-efficiency Vari-Green® EC motor that can be specified on Greenheck centrifugal rooftop fans, sidewall fans, utility, and inline exhaust and supply fans.

The low maintenance, direct-drive Vari-Green motor can operate at 80% turndown of full speed as compared to 30% turndown for standard industry PSC motors. By achieving a wider range of variable speeds, the Vari-Green motor can perform at lower RPMs — saving 20%-70% of the energy costs required by PSC motors and extending bearing life.

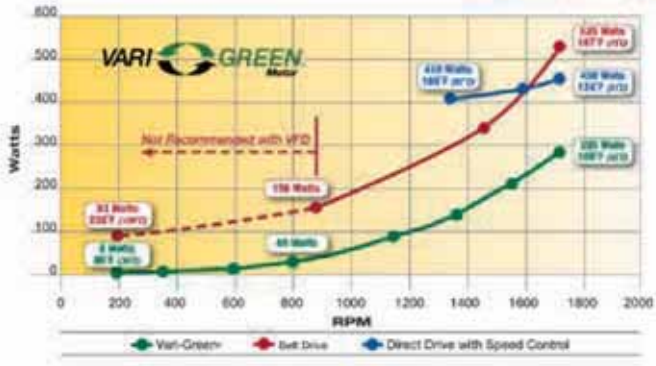
Greenheck's new Vari-Green motor also can help earn LEED building credits under Prerequisite Two: Minimum Energy Performance and Credit One: Optimize Energy Performance.

For better air, specify Greenheck fans. To find out more about our Vari-Green motor, watch a video at greenheck.com/library.

Energy Saved Using a Vari-Green® Motor Versus a PSC

Motor Size	Operating at 50% Full Speed 5,000 hrs/yr	Operating at 75% Full Speed 5,000 hrs/yr
1/4	$ 130	$ 99
1/2	$ 202	$ 148
3/4	$ 273	$ 186

Learn more at greenheck.com



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Fans & Ventilators | Centrifugal & Vane Axial Fans
Energy Recovery Ventilators | Packaged Ventilation Systems
Make-up Air Units | Kitchen Ventilation Systems
Dampers | Louvers | Lab Exhaust Systems | Coils

CUE, CUBE

CW, CWB

UL/cUL 705 Power Ventilators
E40001 - CUE, CW, CUBE, CWB

UL/cUL 762 Power Ventilators for Restaurant Exhaust Appliances - size 099 and up - MH11745 - CUE, CW, CUBE, CWB

c UL US LISTED

UL/cUL Listed 705 is standard on In Stock CW models. UL/cUL Listed 762 is standard on In Stock CUE, CW, CUBE models.

Model CUE, CW, CUBE and CWB are AMCA Licensed for Sound and Air Performance

Model	Best Available Program
CUE-099 through 121, 141 through 180	In Stock
CW-065 through 095, 101, 121 and 141	
CUBE-101 through 121, 141 through 200, 240 & 300	
High Pressure CUBE 141HP, 180HP and 240 HP	
All CUE, CW 060 through 200	1 Day
CUBE-099, 131, 220, 360 through 480	
All CWB 099 through 300	
High Pressure CUE, CW 141HP through 180HP	
High Pressure CUBE 101HP, 161HP, 200HP, 220HP, 300HP and 360HP	
High Pressure CWB 101HP through 300HP	
Extended Pressure CUBE 161XP through 360XP	

VARI-GREEN Motor

Select sizes and models with the Vari-Green® motor are available in stock.

Model CUE, CW Direct Drive and CUBE, CWB Belt Drive

Centrifugal upblast or sidewall fans are designed for clean or contaminated air exhaust applications requiring roof or wall mounting.

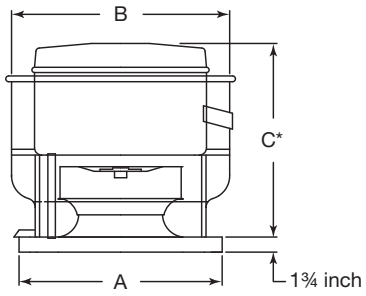
Quick Delivery / Quick Build Performance

CUE, CW capacities range from 65 to 6,400 cfm and 1.5 in. wg of static pressure. CUBE, CWB capacities range from 375 to 30,000 cfm and 2.75 in. wg of static pressure.

Standard Construction	CUE	CW	CUBE	CWB
Housing fully-welded to curb cap with drain trough	■		■	
Wheel - backward-inclined, aluminum	■	■	■	■
One piece windband - aluminum	■	■	■	■
Birdscreen - galvanized		■		■
Corrosion-resistant fasteners	■	■	■	■
NEMA-1 disconnect switch	■	■	■	■
Ball bearing motor - 1/4 hp and larger	■	■	■	■
Double-studded vibration isolators	■	■	■	■
Mounting plate		■		■
Three speed motor - sizes 060 through 095	■	■		
Lifting lugs			■	■
Adjustable motor pulley			■	■

Options and Accessories	Stock	CUE	CW	CUBE	CWB
Vari-Green® motor - 80% turndown, 85% efficient *Available as standard on select sizes*	✓	■	■		
Damper - *not for use in grease applications*	✓	■	■	■	■
Hinged kit - *NFPA required*	✓	■		■	
Roof curb - *NFPA requires vented roof curb*	✓	■		■	
Roof curb accessories - seals, adaptors, extensions		■		■	
Grease trap - *NFPA required*	✓	■		■	
Speed control	✓	■	■		
Wall grille	✓		■		■
Birdscreen - aluminum		■	■	■	■
Clean-out port - *NFPA required*		■		■	
Windband extension		■		■	
Tie-down points		■		■	
NEMA rated disconnect switch		■	■	■	■
Non-stick coating on wheel		■	■	■	■
Heat baffle				■	■
Dual drives				■	■
Relubricatable bearings				■	■
Decorative or protective powder coating		■	■	■	■
Certified for high wind applications		■	■	■	
Certified for seismic applications		■	■	■	■
UL/cUL Listed Power Ventilators		■	■	■	■
UL/cUL Listed Power Ventilators for Restaurant Exhaust Appliances		■	■	■	■

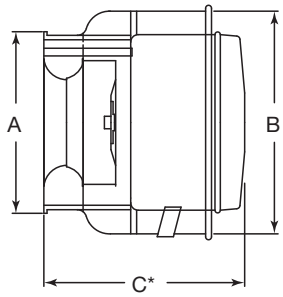
CUE, CUBE



Dimensions for CUE, CUBE

Model Size	A	B	C*	Nominal Sq. Sizes		
				Damper^	Roof Curb	Roof Opening
060, 065, 070, 075	17	18⅜	13½	8	17	10½
080, 085, 090	19	21	13⅜	10	19	12½
095	19	21	15¼	10	19	12½
099, 101, 121, 131	19	24⅞	28¼	12	19	14½
141, 161	22	28⅞	29¾	16	22	18½
180, 200	30	35⅜	28⅝	18	30	20½
220, 240	34	42¾	33⅞	24	34	26½
300	40	50	36	30	40	32½
360	46	56 11/16	39⅛	36	46	38½
420	52	65⅜	44¾	42	52	44½
480	58	74 3/16	48⅛	48	58	50½

CW, CWB



Dimensions for CW, CWB

Model Size	A	B	C*	Nominal Sq. Sizes	
				Damper^	Wall Opening
060, 065, 070, 075	14¾	18⅜	13½	8	8½
080, 085, 090	17⅞	21	13⅜	10	10½
095	17⅞	21	15¼	10	10½
099, 101, 121, 131	19¾	24⅞	28¼	12	12½
141, 161	22⅛	28⅞	29¾	15	15½
180, 200	27¾	35⅜	28⅝	17	17½
220, 240	31¼	42 25/32	33⅞	20	20½
300	38⅜	50	36	25	25½

All dimensions are in inches. Dimension A given is the inside dimension of the curb cap.
*May be greater depending on motor. ^Dampers should not be used in grease applications.

UL/cUL 762 Power Ventilators for Restaurant Exhaust Appliances - MH11745 - USGF, USGF-HP

c UL US LISTED

UL/cUL Listed 762 is standard on USGF, USGF-HP models.

Model USGF is AMCA Licensed for Sound and Air Performance

Best Available Program

10 Days

Model USGF Belt Drive

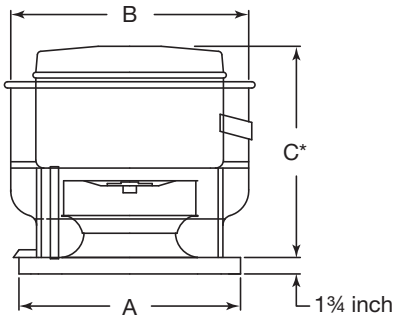
Severe duty centrifugal upblast fans are designed for exhausting highly contaminated air in roof mounted applications.

Quick Build Performance

USGF capacities range from 330 to 6,800 cfm and 2.75 in. wg of static pressure.

Standard Construction
Housing - heavy-gauge steel
Housing fully welded to curb cap with drain trough
Wheel - backward-inclined, heavy-gauge steel
Non-stick coating on wheel
One piece windband - steel
Corrosion-resistant fasteners
NEMA-3R disconnect switch
Assembled hinged base - *NFPA required*
Clean-out port - *NFPA required*
Ball bearing motor - 1/4 hp and larger
Dual drives
Relubricatable bearings
Heat baffle
Double-studded vibration isolators
Lifting lugs
Adjustable motor pulley
Permatector™ protective powder coating

Options and Accessories	Stock
Damper - *not for use in kitchen applications*	
Roof curb - *NFPA requires vented roof curb*	✓
Roof curb accessories - seals, adaptors, extensions	
Grease trap and drain connection - *NFPA required*	
Windband extension	
Tie-down points	
NEMA rated disconnect switch	
Decorative or protective powder coating	
Certified for high wind and seismic applications	

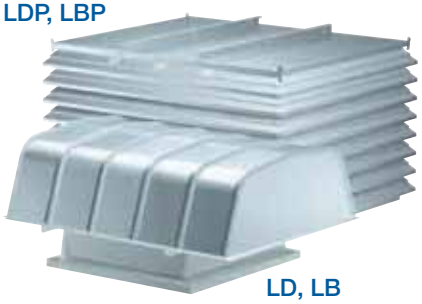


Dimensions for USGF

Model Size	A	B	C*	Nominal Sq. Sizes	
				Roof Curb	Roof Opening
140, 160	26	28⅞	29¾	26	18½
180, 200	30	35⅜	28⅝	30	20½

All dimensions are in inches. Dimension A given is the inside dimension of the curb cap.
*May be greater depending on motor.

LDP, LBP



LD, LB

UL/cUL 705 Power Ventilators
E40001 - LD, LDP, LB and LBP

c UL US LISTED

Model LD, LDP, LB and LBP are AMCA Licensed for Sound and Air Performance

Best Available Program

10 Days

Select sizes and models with the Vari-Green® motor are available.

Model LD, LDP Direct Drive and LB, LBP Belt Drive

Centrifugal downblast fans are designed for clean air exhaust applications requiring roof mounting.

Quick Build Performance

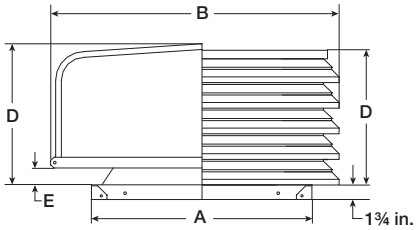
LD, LDP capacities range from 100 to 1,845 cfm and 0.9 in. wg of static pressure.
LB, LBP capacities range from 350 to 37,500 cfm and 2 in. wg of static pressure.

Standard Construction	LD	LDP	LB	LBP
Housings with hinged hoods - Fabra hood style, galvanized	■		■	
Housings with hinged cover - Louvered penthouse, extruded aluminum		■		■
Wheel - backward-inclined, aluminum	■	■	■	■
Birdscreen - galvanized	■	■	■	■
Corrosion-resistant fasteners	■	■	■	■
NEMA-1 disconnect switch	■	■	■	■
Ball bearing motor - 1/4 hp and larger	■	■	■	■
Double-studded vibration isolators	■	■	■	■
Three speed motor - sizes 60 through 95	■	■		
Adjustable motor pulley			■	■

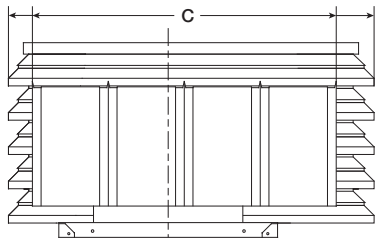
Options and Accessories	Stock	LD	LDP	LB	LBP
Vari-Green® motor - 80% turndown, 85% efficient *Available on select sizes and models.*	✓	■	■		
Damper		■	■	■	■
Roof curb	✓	■	■	■	■
Roof curb accessories - seals, adaptors, extensions		■		■	■
Birdscreen - aluminum		■	■	■	■
Fabra hood - aluminum		■		■	
Stainless steel fasteners		■	■	■	■
Tie-down points		■	■	■	■
NEMA rated disconnect switch		■	■	■	■
Dual drives				■	■
Hood insulation - 1 inch		■	■	■	■
Relubricatable bearings				■	■
Decorative or protective powder coating		■	■	■	■
Certified for high wind			■		■
UL/cUL Listed Power Ventilators		■	■		■

Dimensions for LD, LDP, LB, LBP

LD, LB LDP, LBP



Side view



Model Size	A Sq.	Fabra Hood Style LD, LB				Louver Style LDP, LBP			Nominal Sq. Sizes	
		B	C	D	E	B	C	D	Damper	Roof Opening
60, 65, 70, 75	17	23	27	13⅜	2	23	23	14	8	10½
80, 85, 90, 95	19	28	27	16	4	25	25	17	10	12½
100, 120	22	30	27	23¼	4	28	28	19¼	12	14½
10	22	28	39	17	3¼	28	38½	17	12	14½
14	26	35	39	18	4	32	40	17	16	18½
18	30	40	39	21	4½	36	46	24½	18	20½
21	30	43	51½	23	6	36	46	24½	18	20½
24	34	45½	51½	23¾	6¾	40	49½	23½	24	26½
30	40	50	63	26⅝	8½	46	58	26½	30	32½
36	46	60	63	32⅝	9¾	51¾	63	34⅜	36	38½
42	52	70⅝	75	37⅜	11½	58	70½	38¼	42	44½
48	58	70⅜	87	41½	11⅝	64	76½	40⅜	48	50½
54	64	79⅝	87	45⅜	12½	70	83½	43⅝	54	56½

All dimensions are in inches. Dimension A given is the inside dimension of the curb cap.

Model AE and AS Direct Drive

Axial downblast fans are designed for clean air exhaust or supply applications requiring roof mounting. The propeller provides efficient airflow at low static pressures.

Quick Build Performance

AE capacities range from 250 to 6,000 cfm and 1 in. wg of static pressure.
AS capacities range from 180 to 5,700 cfm and 1 in. wg of static pressure.

UL/cUL 705 Power Ventilators
E40001 - AE, AS

UL/cUL Listed 705 is standard on AE, AS models.

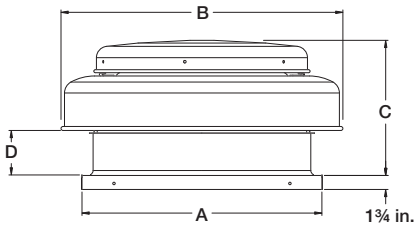
Model AE and AS are AMCA Licensed for Sound and Air Performance

Best Available Program

1 Day

Standard Construction
Housing - aluminum
Propeller - aluminum
Birdscreen - galvanized
Corrosion-resistant fasteners
NEMA-1 disconnect switch
Ball bearing motor - 1/4 hp and larger

Options and Accessories	Stock
Damper	
Roof curb	✓
Roof curb accessories - adaptors, extensions	
Birdscreen - aluminum	
NEMA rated disconnect switch	
Decorative or protective powder coating	



Dimensions for AE, AS

Model Size	A	B	C	D	Nominal Sq. Sizes Recommended Roof Opening
10	19	24⅝	15½	5½	14½
12	22	28⅝	16½	6¼	14½
14	22	28⅝	16½	6¼	16½
16	26	35¼	17¼	6¼	18½
18	30	35¼	17¼	6¼	20½
20	34	42	17½	6¼	26½
24					

All dimensions are in inches.

UL/cUL 705 Power Ventilators
E40001 - RBU, RBUMO and RDU
UL/cUL Power Ventilators for Smoke Control Systems - MH17511 - RBUMO

c UL US LISTED

Model RDU, RBU and RBUMO are AMCA Licensed for Sound and Air Performance

Best Available Program

5 Days

Model RDU Direct Drive and RBU, RBUMO Belt Drive

Axial upblast fans are designed to discharge high volumes of clean or contaminated air up and away from the building.

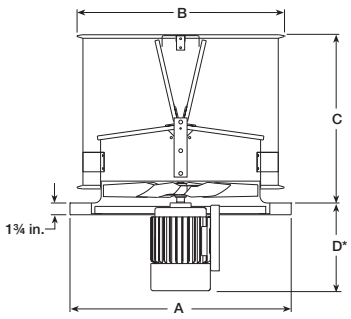
Quick Build Performance

RDU capacities range from 3,175 to 37,850 cfm and 0.75 in. wg of static pressure.
RBU capacities range from 3,500 to 58,475 cfm and 1 in. wg of static pressure.
RBUMO capacities range from 3,300 to 55,175 cfm and 1 in. wg of static pressure.

Standard Construction	RDU	RBU	RBUMO
Housing - galvanized steel with fully-assembled butterfly dampers and damper stops	■	■	■
Curb cap and drive assembly • sizes 18 through 48 - galvanized steel • sizes 54 and 60 - painted steel	■	■	■
Propeller - aluminum	■		
Propeller - fabricated steel		■	■
Corrosion-resistant fasteners	■	■	■
Ball bearing motor - 1/4 hp and larger	■	■	■
Relubricatable bearings		■	■
Variable pitched motor pulley		■	■

Options and Accessories	Stock	RDU	RBU	RBUMO
Roof curb	✓	■	■	■
Roof curb accessories - seals, adaptors, extensions		■	■	■
Guards - inlet, outlet		■	■	■
Propeller - aluminum			■	■
Butterfly dampers - aluminum		■	■	■
Magnetic damper latches		■	■	■
Motorized damper lifters		■	■	■
Fusible link damper lifters		■	■	■
Tie-down points		■	■	■
NEMA rated disconnect switch		■	■	■
Lube lines			■	■
Dual drives			■	■
Belt tube				■
Decorative or protective powder coating		■	■	■
Certified for seismic applications				■
High temperature option				■
UL/cUL Listed Power Ventilators		■	■	■
UL/cUL Listed Power Ventilators for Smoke Control Systems				■

RDU

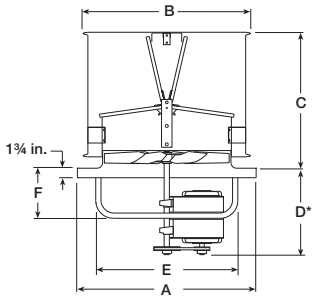


Dimensions for RDU

Model Size	A Curb Cap ID	B	C	D*	Recommended Roof Opening
18	28	25	22	8 3/5	24 1/2
20	30	27 1/4	24	9 3/4	26 1/2
24	34	31 1/8	26	13 1/2	30 1/2
30	40	37 3/8	30	13 1/8	36 1/2
36	46	43 1/2	33	12 15/16	42 1/2
42	52	49 5/6	38	18 1/2	48 1/2
48	58	56	40	18	54 1/2

*Dimension may vary depending on motor.

RBU

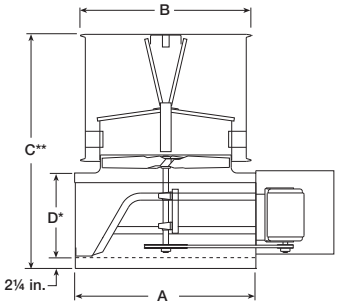


Dimensions for RBU

Model Size	A Curb Cap ID	B	C	D*		E	F	Nominal Sq. Sizes
				1, 2	3			Recommended Roof Opening
20	30	27¼	24	15	—	23¼	9 1/32	26½
24	34	31⅛	26	15½	16¾	27⅜	9 7/16	30½
30	40	37⅜	30	15½	16¾	34¾	9⅞	36½
36	46	43½	33	16¾	16¾	40⅞	9⅞	42½
42	52	49⅝	38	19⅜	23⅞	46¾	11¾	48½
48	58	56	40	19⅜	23⅞	52¾	11¾	54½
54	66½	62⅝	45	19¼	26⅞	61¼	11½	63
60	72½	68¾	48	21¼	27	66¼	15	69

*Dimension may vary depending on motor.

RBUMO



Dimensions for RBUMO

Model Size	A	B	C**	D*	Nominal Sq. Sizes
					Recommended Roof Opening
20	29½	27¼	43½	19¾	26
24	33½	31⅛	45⅝	17½	30
30	39½	37⅜	51¾	19½	36
36	45½	43½	55	19½	42
42	51½	49⅝	59⅝	19⅝	48
48	57½	56	63⅝	21¾	54
54	66	62⅝	70⅝	22¾	62½
60	72	68¾	75	23	68½

*Dimension may vary depending on motor.
**Sizes 42 through 60 with High Temperature Option will be 5 inches larger.

UL/cUL 705 Power Ventilators
E40001 - TAUD and TAUB

Model TAUD and TAUB-CA are AMCA Licensed for Air Performance

Model TAUB-L and TAUB-H are AMCA Licensed for Sound and Air Performance

Best Available Program

10 Days

Model TAUD Direct Drive and TAUB-L/H, TAUB-CA Belt Drive

Tube axial upblast roof exhaust fans are designed to efficiently remove and disperse contaminated air. They are best suited for exhausting relatively clean, dry and cool air.

The TAUB-L/H is available with high temperature options that meet IRI, SBCCI, or can be UL/cUL Listed as a Power Ventilator for Smoke Control Systems.

TAUB-L/H High Temperature Options	
Option I	200°F (93°C) to 500°F (260°C) Continuous Operation
Option II	500°F (260°C) for minimum of 4 hours
Option III	1000°F (538°C) for minimum of 15 minutes
Option IV	UL/cUL Listed Power Ventilators for Smoke Control Systems

Quick Build Performance

TAUD capacities range from 2,800 to 46,000 cfm and up to 1 in. wg of static pressure.

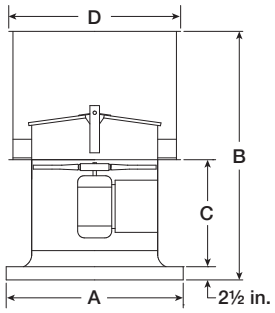
TAUB-L/H capacities range from 4,300 to 60,200 cfm and up to 1 in. wg of static pressure.

TAUB-CA capacities range from 2,800 to 74,000 cfm and up to 1.25 in. wg of static pressure.

Standard Construction	TAUD	TAUB-L/H	TAUB-CA
Heavy-gauge curb cab, tubular housing and windband	■	■	■
Propeller - cast aluminum airfoil	■		■
Propeller - fabricated steel		■	
Polished steel shaft		■	■
Corrosion-resistant fasteners	■	■	■
Cast iron pillow block bearings Minimum bearing life of L_{10} 40,000 hours		■	■
Adjustable motor plate		■	■
Butterfly backdraft damper - steel, aluminum	■	■	■
Extended lube lines		■	■
Permatector™ protective powder coating	■	■	■

Options and Accessories	Stock	TAUD	TAUB-L/H	TAUB-CA
Roof curb	✓	■	■	■
Curb seal		■	■	■
Guards - inlet, outlet		■	■	■
Magnetic damper latches		■	■	■
Fusible link damper lifter		■	■	■
Access door - bolted, hinged		■	■	■
Tie-down points		■	■	■
NEMA-3R disconnect switch		■	■	■
Shaft seal			■	■
Bearings with high temperature grease and zerk fittings			■	
Decorative or protective powder coating		■	■	■
UL/cUL Listed Power Ventilators		■	■	■

TAUD

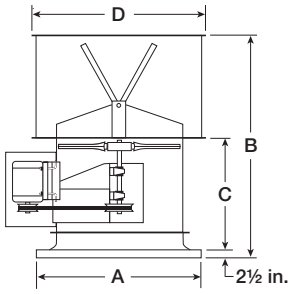


Dimensions for TAUD

Model Size	A	B	C	D	Nominal Sq. Sizes Recommended Roof Opening
18	26	44¾	21⅜	25¼	20½
20	30	45¾	22½	27	22½
24	34	48¼	22⅝	31⅛	26½
30	40	53¼	24¾	37⅜	32½
36	46	55¾	24⅞	43½	38½
42	52	66¾	31	49⅞	44½
48	58	67¾	31⅛	56	50½

All dimensions are in inches.

TAUB-L/H • TAUB-CA



Dimensions for TAUB-L/H, TAUB-CA

Model Size	A	B	C	D	Nominal Sq. Sizes Recommended Roof Opening
18	26	48⅛	25¾	25¼	20½
20	30	49⅜	26⅛	27	22½
24	34	54⅜	28⅝	30⅞	26½
30	40	57⅞	29⅜	37⅛	32½
36	46	64½	33¼	43¼	38½
42	52	72	36¼	49⅝	44½
48	58	80	44½	55¾	50½
54	64	90½	49⅜	62⅝	56½
60	70	96¾	52½	68⅞	62½

All dimensions are in inches.

UL/cUL 705 Power Ventilators
E40001 - SAF

UL/cUL Listed 705 is standard on In Stock models.

Model SAF is AMCA Licensed for Sound and Air Performance

Model	Best Available Program
SAF-110 through 118	In Stock
SAF-120	5 Days

Model SAF Belt Drive

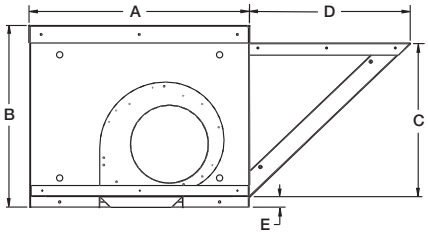
Centrifugal supply fans are designed to draw filtered, untempered air from one side of the housing.

Quick Delivery / Quick Build Performance

Capacities range from 820 to 14,000 cfm and 3.5 in. wg of static pressure.

Standard Construction
Housing - galvanized steel
Wheel - forward-curved, galvanized steel, double-width
Housing cover and side access panels - removable
Corrosion-resistant fasteners
Filters - one-inch aluminum, washable
Ball bearing motor - 1/4 hp and larger
Double-studded vibration isolators
Lifting lugs
Adjustable motor pulley

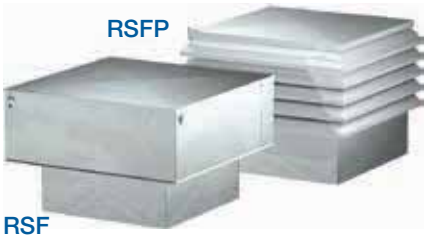
Options and Accessories	Stock
Damper	✓
Roof curb	✓
Roof curb accessories - adaptors, extensions	
Duct adaptor	
NEMA rated disconnect switch	
Dual drives	
UL/cUL Listed Power Ventilators	



Dimensions for SAF

Model Size	A	B	C	D	E	Nominal Sq. Sizes Recommended Roof Opening
110	30	25	21 1/16	22	1 1/2	16 1/2
112	35	32	27 3/8	29 1/4	2	20 1/2
115	34	32 1/16	27 3/8	29 1/4	2	26 1/2
118	42	36 1/16	31 1/16	32	2	32 1/2
120	45 1/2	48 1/16	44 1/16	35 13/16	2 1/8	38 1/2

All dimensions are in inches.



RSF

UL/cUL 705 Power Ventilators
E40001 - RSF, RSFP

Model RSF and RSFP are AMCA Licensed for Air Performance

Best Available Program

5 Days

Model RSF and RSFP Belt Drive

Centrifugal supply fans are designed to draw filtered, untempered air from all four sides of the housing.

Quick Build Performance

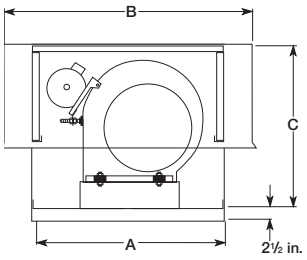
RSF, RSFP capacities range from 700 to 14,300 cfm and 2 in. wg of static pressure.

Standard Construction	RSF	RSFP
Housing - galvanized steel	■	
Housing - louvered penthouse, extruded aluminum		■
Wheel - forward-curved, steel, double-width	■	■
Insulated removable cover with quick release latches	■	■
Corrosion-resistant fasteners	■	■
Filters - one-inch aluminum, washable	■	■
Ball bearing motor - 1/4 hp and larger	■	■
Double-studded vibration isolators	■	■
Adjustable motor pulley	■	■

Options and Accessories	Stock	RSF	RSFP
Damper		■	■
Roof curb	✓	■	■
Roof curb accessories - seals, adaptors, extensions		■	■
Duct adaptor		■	■
Tie-down points		■	■
NEMA rated disconnect switch		■	■
Dual drives		■	■
Decorative or protective powder coating		■	■
Certified for high wind and seismic applications		■	■
UL/cUL Listed Power Ventilators		■	■

Dimensions for RSF

RSF

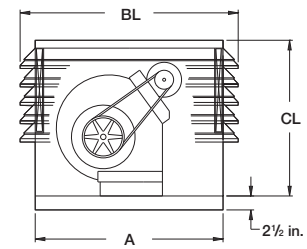


Model Size	A sq.	B sq.	C	Nominal Sq. Sizes	
				Recommended Roof Opening	Damper Size
90	26	35⅛	23¼	15	12
100	30	41⅛	23¼	17	14
120	34	47⅛	27¼	21	18
150	40	53⅛	31¼	23	20
180	46	61⅛	34¼	29	26
200	52	73⅛	39¼	33	30

All dimensions are in inches.

Dimensions for RSFP

RSFP



Model Size	A sq.	BL sq.	CL	Nominal Sq. Sizes	
				Recommended Roof Opening	Damper Size
90	26	31⅞	25⅜	15	12
100	30	35⅞	25⅜	17	14
120	34	39⅞	29⅜	21	18
150	40	45⅞	33⅜	23	20
180	46	51⅞	35⅜	29	26
200	52	58 3/16	40⅜	33	30

All dimensions are in inches.

Shown with tall base option.

UL/cUL 705 Power Ventilators
E40001 - **RE2, RS2, RCE3, RCS3, RBE, RBS, RBCE, RBCS**

c UL US LISTED

Model RE2, RS2, RCE3, RCS3, RBE, RBS, RBCE, RBCS are AMCA Licensed for Sound and Air Performance

Best Available Program

5 Days

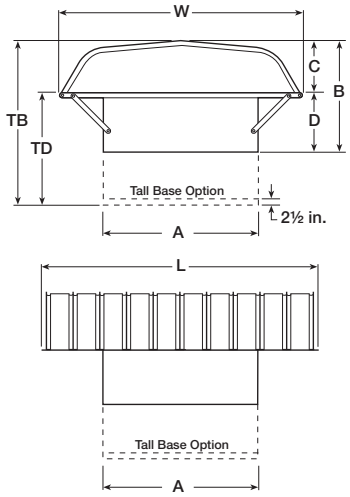
Model RE2, RS2, RCE3, RCS3 Direct Drive and RBE, RBS, RBCE, RBCS Belt Drive

Hooded roof fans are designed to exhaust or supply high volumes of air from commercial and industrial buildings. Interlocking fabra hood design consists of four material thicknesses at each rib location ensuring strength in severe conditions. Some models are available as filtered or reversible.

Quick Build Performance

Capacities range from 825 to 79,7000 cfm and 1.5 in. wg of static pressure.

		Direct Drive		Belt Drive	
Standard Construction		RE2 RS2	RCE3 RCS3	RBE RBS	RBCE RBCS
Hood and base - galvanized steel		■	■	■	■
Propeller - cast aluminum			■		■
Propeller - fabricated steel		■		■	
Birdscreen - galvanized		■	■	■	■
Corrosion-resistant fasteners		■	■	■	■
Filters - two-inch aluminum, washable (RBF, RBCF, RPBRF, RPDRF)				■	■
Ball bearing motor - 1/4 hp and larger		■	■	■	■
Relubricatable bearings				■	■
Adjustable motor pulley				■	■
Options and Accessories	**Stock**	**RE2 RS2**	**RCE3 RCS3**	**RBE RBS**	**RBCE RBCS**
Damper		■	■	■	■
Roof curb	✓	■	■	■	■
Roof curb accessories - seals, adaptors, extensions		■	■	■	■
Tall base with access door		■	■	■	■
Hood and base - aluminum		■	■	■	■
Hood insulation		■	■	■	■
Safety guards		■	■	■	■
Wiring - pigtails		■	■	■	■
Lube lines				■	■
Tie-down points and lifting lugs		■	■	■	■
NEMA rated disconnect switch		■	■	■	■
Dual drives				■	■
Decorative or protective powder coating		■	■	■	■
Certified for high wind and seismic applications		■	■	■	■
UL/cUL Listed Power Ventilators		■	■	■	■



Dimensions

- Direct Drive Sizes 18-54
- Belt Drive Sizes 20-72

Model Size	Fan Panel Sq. Size		Standard Base		Tall Base		Standard Hood	Filtered Hood	Damper Sq. Size	Roof Opening Sq. Size
	A	C	B	D	TB	TD	W x L	W x L		
18	28	13	23	10	40¼	27¼	48 x 51	—	18	20½
20	30	16	27	11	44¼	28¼	54 x 51	54 x 51	20	22½
24	34	18	29	11	46¼	28¼	66 x 63	66 x 63	24	26½
30	40	20	34	14	51¼	31¼	75 x 75	78 x 87	30	32½
36	46	21	38½	17½	56¾	34¾	88 x 87	94 x 87	36	38½
42	52	24	42½	18½	59¾	35¾	86 x 99	93 x 99	42	44½
48	58	24	43½	19½	60¾	36¾	93 x 111	112 x 111	48	50½
54	64	26½	49	22½	66¼	39¾	112 x 111	124 x 123	54	56½
60	70	26½	50	23½	67¼	40¾	124 x 123	136 x 135	60	62½
72	83	29	53	24	70¼	41¼	136 x 135	136 x 147	72	74½

All dimensions are in inches.

Gravity Ventilators

GRS

GRSF

FGI, FGR

RGU

Model	Best Available Program
GRS-8 through 30	In stock
GRSF-10 and 12	
GRS-36 through 48	1 Day
GRSF-8, 15 through 24	
FHI, FGR 10 x 10 through 72 x 180	5 Days
RGU-18 through 60	

Model GRS, GRSF, FGI, FGR and RGU

Gravity ventilators are designed to relieve or take in air via building pressure. As buildings become pressurized, they will relieve the air from the building and as they come under a negative pressure, they will allow air into the building.

Quick Build Performance

GRS, GRSF capacities range from 170 to 8,100 cfm (intake performance) and 230 to 18,300 cfm (relief performance).

FGI capacities range from 264 to 108,000 cfm and 0.339 in. wg. of static pressure.

FGR capacities range from 233 to 96,750 cfm and 0.278 in. wg. of static pressure.

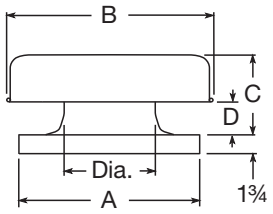
RGU capacities range from 1,460 to 24,031 and 0.7 in. wg of static pressure.

Standard Construction	GRS	GRSF	FGI, FGR	RGU
Housing - spun aluminum	■	■		
Housing - fabra hood, galvanized or aluminum			■	
Housing - upblast, galvanized				■
Birdscreen - galvanized	■	■	■	
Corrosion-resistant fasteners	■	■	■	■
Butterfly dampers - galvanized, aluminum				■

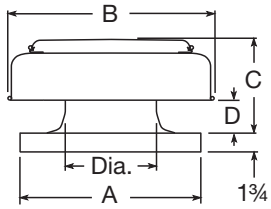
Options and Accessories	Stock	GRS	GRSF	FGI, FGR	RGU
Damper	✓	■	■	■	
Roof curb	✓	■		■	■
Roof curb accessories - adaptors, extensions		■	■	■	■
Damper lifters - fusible link, motorized					■
Birdscreen - aluminum		■	■	■	
Insect screen		■	■	■	
Insulation - ½ or 1-inch		■	■	■	
Filters - 2-inch aluminum, washable (FGI)				■	
Tie-down points		■	■	■	■
12-inch high base				■	
Decorative or protective powder coating		■	■	■	■
Certified for high wind applications				■	

GREENHECK
Building Value in Air.

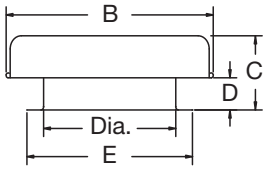
GRS
Sizes 8 thru 24



GRS
Sizes 30 thru 48



GRSF *with Optional Flashing Flange*
Sizes 8 thru 24

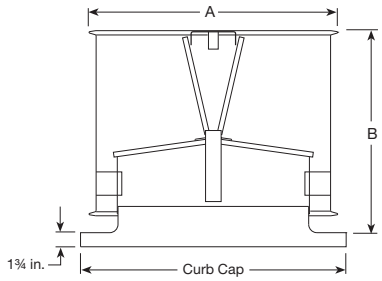


Dimensions for GRS, GRSF

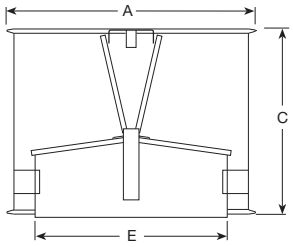
Model Size	A	B	C	D	E	Dia.	Throat Area (ft^2)
8	19	20½	7¼	1½	20¼	8¼	0.37
10	19	20½	7¾	2	20¼	10¼	0.57
12	22	29	10	3½	23¼	12¼	0.82
15	22	29	10	3½	23¼	14¼	1.12
16	26	29	11	4¼	27¼	16¼	1.45
18	30	35½	9¾	1¾	31¼	20¼	1.83
20	30	35½	11¼	3¾	31¼	20¼	2.25
24	34	38¼	11	4	35¼	24½	3.24
30	40	48	18¾	5 7/16	—	30½	5.03
36	46	56¾	21¼	6	—	36½	7.29
42	52	63¼	24¼	6¼	—	42½	9.77
48	58	72	26¼	6½	—	48½	12.83

All dimensions are in inches.

RGU *with Curb Cap*



RGU *without Curb Cap*



Dimensions for RGU

Model Size	A	B	C	E	Curb Cap	Recommended Roof Opening
18	25	22	20¼	18½	28	22
20	27¼	24	21¼	20½	30	24
24	31⅛	26	24	24½	34	28
30	37⅜	30	26¾	30⅝	40	34
36	43½	33	29¼	36⅝	46	40
42	48⅞	38	34¼	42¾	52	46
48	56	40	34¼	48½	58	52
54	62⅝	45	40¼	55	66½	60
60	68¾	48	43⅛	61	72½	66

All dimensions are in inches.

Air Circulators

UL/cUL 507
E33599 - IC and ICO
c UL us LISTED

UL/cUL Listed 507 is standard on In Stock models.

Best Available Program

In Stock

Model IC and ICO Direct Drive

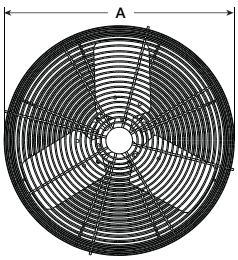
Air circulator fans are non-oscillating and oscillating direct-driven two-speed fans designed for air movement in humid and demanding applications and are suitable for spot cooling and recirculating air in factories, warehouses, manufacturing facilities, and garages. Fan heads utilize a vertical locking tilt adjustment for directing air where it is needed. A required mounting accessory is to be purchased separately.

Quick Delivery Performance

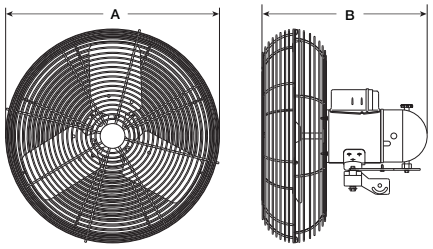
IC capacities range from 3,055 to 9,704 cfm.
ICO capacities range from 3,055 to 9,612 cfm.

Standard Construction
Propeller - three-bladed, aluminum
OSHA compliant polyester powder-coated wire guard
Totally enclosed air over permanent split capacitor motor
Factory-wired, 10 foot power cord with 3-conductor plug
2-speed pull chain switch - operation OFF-LOW-OFF-HIGH
Ball bearings
Maximum ambient temperature of 104°F
Oscillating units sweep through 45° or 90° arc
Options and Accessories
Pedestal mount
Pedestal wheel kit
Wall/post/ceiling mount bracket
Suspension mount bracket (IC)
I-beam mount bracket (IC)

IC* - Non-Oscillating



ICO - Oscillating



Dimensions for IC*, ICO

Model Size	Propeller Diameter	A	B	Model Size	Propeller Diameter	A	B
IC - Non-Oscillating				ICO - Oscillating			
20	20	23	12¾	20	20	23	17¾
24	24	27	13¼	24	24	27	17¾
30	30	33	13¼	30	30	33	17¾

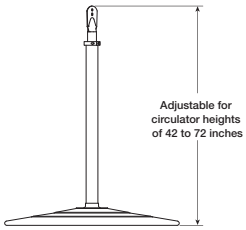
All dimensions are in inches.
*Model IC fans cannot be ceiling hung.

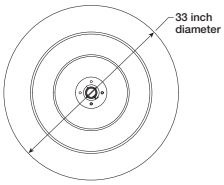
Accessories

Pedestal and Pedestal Wheel Kit

Pedestal
PED-CG72-QD
Pedestal Wheel Kit
PED-WK-QD

Pedestal is designed to station non-oscillating and oscillating air circulator fans. It is constructed of steel and is UL Listed when used with Greenheck's air circulator fans. Includes adujstable column with mounting holes for circulator heights of 42 to 72 inches. Pedestal has a gray polyester powder coating. The wheel kit accommodates the pedestal to provide easy movement of a fan. Wheel kit brackets are constructed of steel.



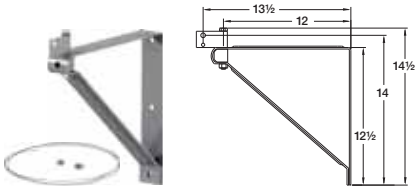


Mounting Brackets

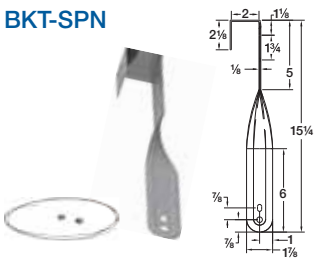
Wall, Post, Ceiling
BKT-WPC-100-QD
Suspension
BKT-SPN-100-QD
I-Beam
BKT-IBM-100-QD

Mounting brackets are designed to mount non-oscillating and oscillating air circulator fans from walls, posts, ceiling beams, rafters or columns to provide multidirectional airflow. Accessories have prepunched mounting holes and are UL Listed when used with Greenheck's air circulator fans. The suspension bracket is not intended for use with oscillating circulators. The wall/post/ceilings bracket includes a small swivel bracket allowing circulators to pivot from left to right and is not recommended for use with oscillating circulators when ceiling mounted. The I-beam bracket is not intended for use with oscillating circulators. Includes a removable yoke adapter to add additional length if required.

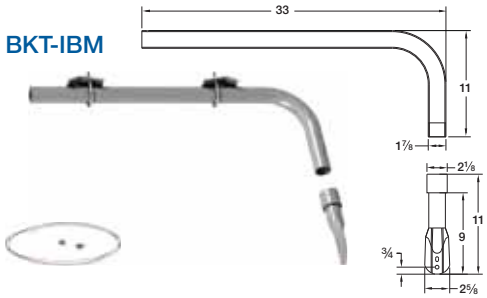
BKT-WPC



BKT-SPN



BKT-IBM



Bath and Inline Fans

SP

UL/cUL 507 - E33599 - Ceiling Exhaust Fans
Model SP-A390 and smaller and SP-B are UL/cUL Listed for above bathtub/shower with GFCI branch protected circuit.
Model SP-C is UL/cUL Listed

c UL US LISTED

UL/cUL Listed 507 is standard on In Stock models.

Model SP is AMCA Licensed for Sound and Air Performance

Tub & Shower · PLUG-IN · ENERGY STAR

CSP

UL/cUL 507 - Cabinet Fans - E33599
Model CSP-A and CSP-B are UL/cUL Listed.

c UL US LISTED

UL/cUL Listed 507 is standard on In Stock models.

Model CSP is AMCA Licensed for Air Performance

PLUG-IN

Model	Best Available Program
SP-C50 SP-B50 through B200 SP-A50 through A1550	In Stock
CSP-B110 through B200 CSP-A110 through A1550	
SP-L50, SP-L80	1 Day
CSP-A1750 through A3600	
SP-A510-VG, SP-A710-VG CSP-A510-VG, CSP-A710-VG	5 Day

Best Available are 115 volt.

Model SP and CSP Direct Drive

Centrifugal ceiling and inline fans are designed for clean air applications where low sound levels are desired.

Quick Delivery / Quick Build Performance

SP Ceiling capacities range from 50 to 1,600 cfm and 1 in. wg of static pressure.
SP Wall capacities range from 50 to 80 cfm and 0.625 in. wg of static pressure.
CSP Inline capacities range from 70 to 3,800 cfm and 1 in. wg of static pressure.

Standard Construction	SP Ceiling			SP Wall	CSP Inline	
	A	B	C	SP-L	A	B
Housing - galvanized steel	■	■	■	■	■	■
Housing - low profile		■	■	■		■
Housing - insulated	■				■	
Wheel - forward-curved	■	■	■	■	■	■
Access panel	■	■	■	■	■	■
Electrical disconnect	■	■	■	■	■	■
Electrical knockouts	■	■	■	■	■	■
Electrical junction box	■	■		■	■	■
Mounting brackets	■	■	■	■	■	■
Backdraft damper	■	■	■	■	■	■
Flanges - inlet and outlet					■	■
Designer grille - up through size 390	■	■		■		
Aluminum grille - sizes 410 and larger	■	■				

Options and Accessories	Stock	SP Ceiling			SP Wall	CSP Inline	
		A	B	C	SP-L	A	B
Discharge accessory - transitions *Available as standard on select sizes*	✓	■	■		■	■	■
Discharge accessories - roof, wall	✓	■	■	■	■	■	■
Electrical accessories - speed control, motion detector, time delay	✓	■	■	■	■	■	■
Transformer	✓	■	■	■	■	■	■
Switches - 1 or 2 function		■	■	■	■	■	■
Minimum ventilation controller	✓	■	■	■	■	■	■
Firestat	✓	■	■	■		■	■
Dehumidistat	✓	■	■	■	■	■	■
Isolators - hanging	✓	■	■		■	■	■
Grille - decorative, stainless steel, aluminum	✓	■	■		■		
Lighted grille - SP-A, sizes 50 thru 390 SP-B, sizes 50 thru 200 - Bulbs - compact fluorescent or LED - Lens - frosted, prismatic		■	■				
Filters	✓	■	■		■		
Ceiling radiation damper	✓	■	■				
Contractor 4 Packs - housing and motor packs separate	✓		■				
Motor: • 50 or 60 Hz **(select sizes)** • 115 or 277 volt **(select sizes)**		■	■		■	■	■

Products that earn the ENERGY STAR® prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy.

ENERGY STAR · LEARN MORE AT energystar.gov

Fans that are ENERGY STAR® qualified include:
SP-B70, 80 and 90
SP-A70, 90, 110, 125, 190, 200, 250
SP-L50 and 80

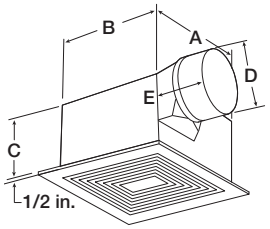
VARI-GREEN Motor

Select sizes and models with the Vari-Green® motor are available.

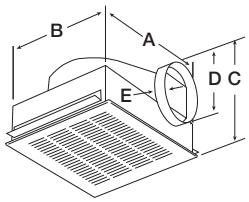
GREENHECK
Building Value in Air.

For comprehensive product information, including performance, access the product catalog found on www.greenheck.com or contact your local Greenheck representative.

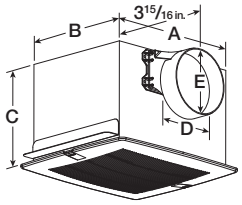
SP-C



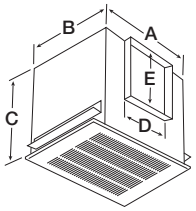
SP-B



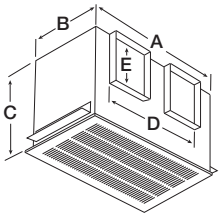
SP-A50-90



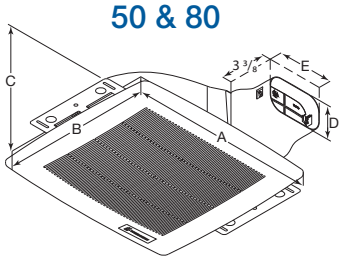
SP-A110 thru 510, 510-VG SP-A710, 710-VG & 780



SP-A700, SP-A900 thru 1550



SP-L 50 & 80

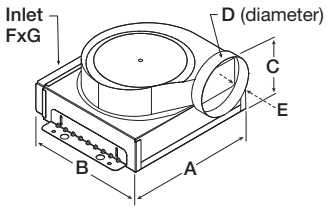


Dimensions for SP

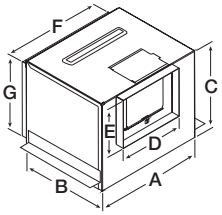
Model Size	A	B	C	Outlet		Grille Size*
				D	E	
SP-C50	7½	7½	3⅝	3	1⅝	9¼ x 9
SP-B50, SP-B70, SP-B80, SP-B90, SP-B110, SP-B150, SP-B200	13⅞	11½	7	6	1¼	14⅞ x 13¼
SP-A50, SP-A70, SP-A90	13¼	10⅝	9	6	6	14⅞ x 13¼
SP-A110, SP-A125, SP-A190	13¼	10⅝	9	8	6	14⅞ x 13¼
SP-A200, SP-A250, SP-A290, SP-A390	14	11⅞	11¼	8	8	14⅞ x 13¼
SP-A410, SP-A510, SP-A510-VG	18	14⅜	14½	8	8	19⅜ x 16⅜
SP-A700	23⅝	11⅝	11⅝	19½	8	25⅛ x 13⅜
SP-A710, SP-A710-VG, SP-A780	18	14⅜	14½	10	8	19⅜ x 16⅜
SP-A900, SP-A1050, SP-A1410, SP-A1550	23¾	14⅜	14½	18⅞	8	25 x 16⅜
SP-L50, SP-L80	13⅞	11½	3⅝	2⅝	4⅞	14⅞ x 13¼

All dimensions are in inches.
*Grille dimensions are for the designer grille except on model SP-C50 where the dimensions are shown for the decorative grille.

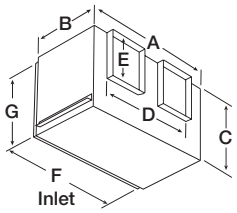
CSP-B110-200



CSP-A110 thru 510 CSP-A510-VG



CSP-A700 thru 3600 CSP-A710-VG



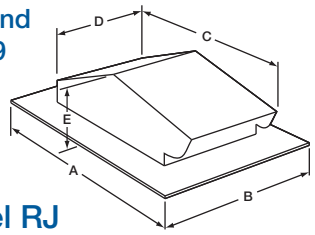
Dimensions for CSP

Model Size	A	B	C	D	E	F	G
CSP-B110, CSP-B150, CSP-B200	13⅞	11½	7	6	1¼	13½	3¼
CSP-A110, CSP-A125, CSP-A190	13¼	10⅝	9	8	6	12	7¾
CSP-A200, CSP-A250, CSP-A290, CSP-A390	14	11⅞	11¼	8	8	12⅞	10
CSP-A410, CSP-A510, CSP-A510-VG	18	14⅜	14½	8	8	16⅞	13¼
CSP-A700	23⅝	11⅝	11⅝	19½	8	22⅝	10½
CSP-A710, CSP-A710-VG, CSP-A780	18	14⅜	14½	10	8	16⅞	13¼
CSP-A900, CSP-A1050, CSP-A1410, CSP-A1550	23¾	14⅜	14½	18⅞	8	22⅝	13¼
CSP-A1750, CSP-A2150	35	14¾	14¾	28	6	32¾	13
CSP-A3600	45½	16½	16½	40	11	43¼	14⅝

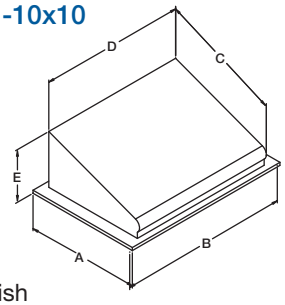
All dimensions are in inches.

Discharge Accessories for SP and CSP

RJ-4 and RJ-6x9



RJ-10x10



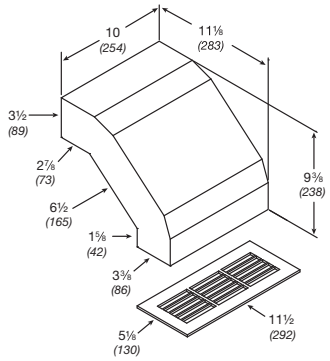
Model RJ

Pitched Roof Cap

- Steel construction with black enamel finish
- Integral flashing flange
- Built-in birdscreen and damper

Model	For use with SP-C, SP-B, SP-A SP-L, SP/CSP-A-VG CSP-B, CSP-A	A	B	C	D	E	Throat
RJ-4	Size C50, Size B50 - 80 Size L50, 80	11	9¼	8¼	5⁵⁄₁₆	4½	4 in. dia.
RJ-6 x 9	Size B90 - 200 Size A50 - 390	18¾	14¼	14½	10⅜	6½	6 x 9
RJ-10 x 10	Size A410 - 1050	18½	27½	15¾	23⅝	9½	10 x 10

All dimensions are in inches.



All dimensions are in inches *(millimeters)*.

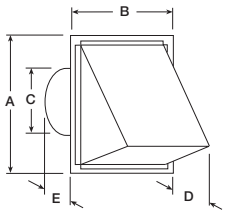
Model EL-10x3

Elbow Discharge with Grille

- Designed for installation under roof eaves
- Painted steel louvered grille
- Built-in damper
- For SP-C/SP-B/SP-A, sizes 50 - 290
- For SP-L, sizes 50, 80
- For CSP-B/CSP-A, sizes 110 - 290

Model WC

Round Connection Hooded Wall Cap



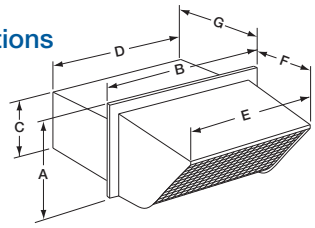
- Aluminum construction - aluminum finish
- For outside wall applications
- Built-in birdscreen (not available on WC-4) and damper

Model	For use with SP-C, SP-B, SP-A SP-L, SP/CSP-A-VG CSP-B, CSP-A	A	B	C	D	E
WC-4	Size C50	6½	6	4	4	5
WC-6	Size B50 - 200 Size A50 - 190 Size L50, 80	8	8	6	4⅛	5
WC-8	Size A200 - 510	11	11	8	5⅛	3½

All dimensions are in inches.

Model WC

Square/Rectangular Connections Hooded Wall Cap



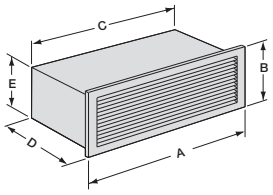
- Steel construction with black enamel finish
- For outside wall applications
- Built-in birdscreen and damper

Model	For use with SP-C, SP-B, SP-A SP-L, SP/CSP-A-VG CSP-B, CSP-A	A	B	C	D	E	F	G
WC-10 x 3	Size C50 Size B50 - 200 Size A50 - 290 Size L50, 80	5½	12¾	3½	10¼	11⅛	4¼	5
WC-8 x 8	Size A390 - 510	10¼	10¼	8¼	8¼	8¼	6¾	5
WC-18 x 8	Size A700 - 1550	10¼	20¼	8¼	18¼	18¼	6¾	5

All dimensions are in inches.

Model WL

Wall Louvered Discharge



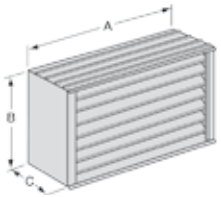
- Anodized aluminum grille
- Built-in damper
- Not recommended for exterior applications exposed to severe weather conditions. An external wall louver is recommended for such applications.

Model	For use with SP-C, SP-B, SP-A SP-L, SP/CSP-A-VG CSP-B, CSP-A	A	B	C	D	E
WL-10 x 3	Size C50 Size B50 - 200 Size A50 - 290 Size L50, 80	12	5¼	10	7¾	3½
WL-18 x 6	Size A390 - 1550	19¾	8	18	9	6

All dimensions are in inches.

Model BVE

Brick Vent



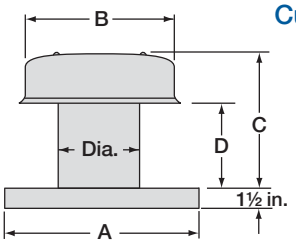
- Designed for installation in masonry walls
- Anodized aluminum construction
- Built-in aluminum mesh insect screen

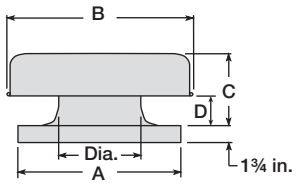
Model	For use with SP-C, SP-B, SP-A SP-L, SP/CSP-A-VG CSP-B, CSP-A	A	B	C
BVE808	Size C50 Size B50 - 200 Size A50 - 290 Size L50, 80	8⅛	7¾	4
BVE128	Size A390 - 510	12	7¾	4
BVE157	Size A700 - 1050	15⅝	7¾	4

All dimensions are in inches.

Discharge Accessories for SP and CSP

Curb Cap





Model RCC-7

- Weathertight aluminum construction
- Integral birdscreen
- Built-in curb cap
- Requires roof curb

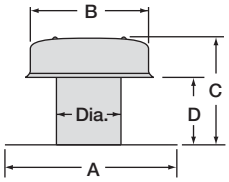
Model GRS

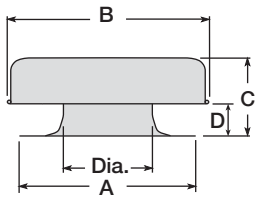
- All aluminum exterior construction
- Galvanized steel internal supports
- Integral birdscreen
- Built-in curb cap
- Requires roof curb

Model	For use with SP-C, SP-B, SP-A SP-L, SP/CSP-A-VG CSP-B, CSP-A	A	B	C	D	Dia.
RCC-7	Size C50 Size B50 - 200 Size A50 - 390 Size L50, 80	15	12	10	6⅜	7
GRS-10	Size A410 - 710	19	20½	7¾	2	10¼
GRS-12	Size A780 - 1050	22	29	10	3½	12¼
GRS-16	Size A1410 - 2150	26	29	11	4¼	16⁵⁄₁₆
GRS-20	Size A3600	30	35½	11¼	3¾	20⁵⁄₁₆

All dimensions are in inches.

Flashing Flange





Model RFC-7

- Weathertight aluminum construction
- Integral birdscreen
- Built-in flashing flange

Model GRSF

- All aluminum exterior construction
- Galvanized steel internal supports
- Integral birdscreen
- Built-in flashing flange

Model	For use with SP-C, SP-B, SP-A SP-L, SP/CSP-A-VG CSP-B, CSP-A	A	B	C	D	Dia.
RFC-7	Size C50 Size B50 - 200 Size A50 - 390 Size L50, 80	18	12	10	6⅜	7
GRSF-10	Size A410 - 710	23	20½	7¾	2	10¼
GRSF-12	Size A780 - 1050	26	29	10	3½	12¼
GRSF-16	Size A1410 - 2150	30	29	11	4¼	16⁵⁄₁₆
GRSF-20	Size A3600	34	35½	11¼	3¾	20⁵⁄₁₆

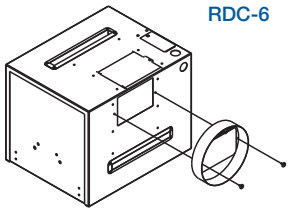
All dimensions are in inches.

Model RDC

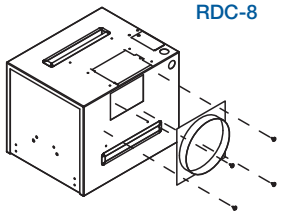
Round Duct Connector

- Replaces the standard square discharge duct connector and damper.
- Uses existing mounting holes
- Galvanized steel construction
- RDC-6 includes a damper
- RDC-8 does not include a damper

RDC-6



RDC-8



Model	For use with SP-A, CSP-A SP/CSP-A-VG	Dia.
RDC-6	Size A110 - 190	6
RDC-8	Size A200 - 510	8

All dimensions are in inches.

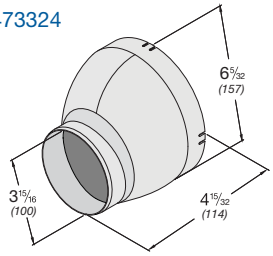
Transition Duct Reducer

- Durable plastic construction

Model	For use with SP-B, SP-A, SP-L CSP-B, CSP-A
473324 6x4 Reducer	Size B50 - 200
	Size A50 - 90
	Size A110 - 190*
481734 4x3 Reducer	Size L80

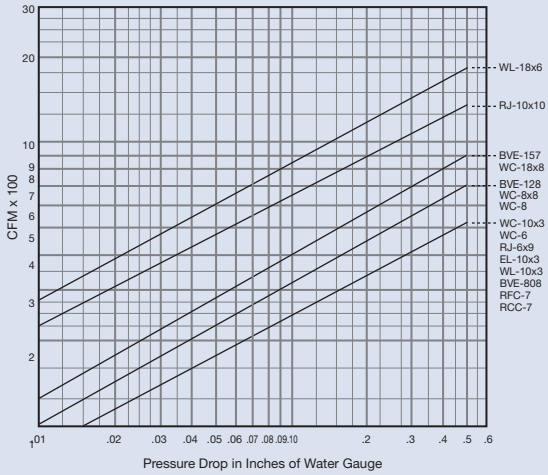
All dimensions are in inches.
Used in conjunction with RDC-6

473324



Accessory Pressure Drops

The chart below can be used with all of the discharge accessories shown on these two pages. Specific pressure drop values for these accessories must be included in total system calculations for proper fan selection.



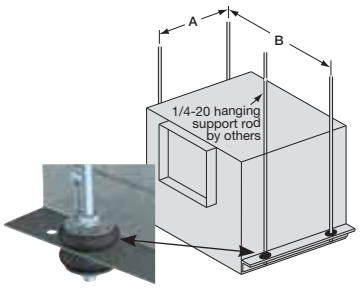
Pressure Drop in Inches of Water Gauge
Above accessories tested with 4 feet of inlet duct

Hanging Vibration Isolators

Vibration isolator kits are available for suspended installations. Kits include all hardware necessary to mount one unit, with the exception of 1/4-20 threaded rod to be supplied by others. Fan mounting brackets include prepunched mounting holes for ease of installation.

Model Size	A	B
B50 - B200	4½	15⅝
A50 - A190	5½	14⅝
A200 - A390	6¾	15½
A410 - A510, A510-VG, A710, A710-VG & A780	9¼	19⅝
A700	5½	25⅛
A900 - A1050, A1410 - A1550	9¼	25⅜
A1750, A2150	9¼	36¾
A3600	9¼	48⅝

All dimensions are in inches.



Ceiling Radiation Dampers

The Greenheck SP-A and SP-B ceiling radiation dampers are UL/cUL Classified, rated at three to four hours fire resistance, and are available on all SP-A and SP-B fans and fan/light combinations. This design saves space by allowing the dampers to be mounted directly beneath the fan.

SP Model	CRD	Length	Width	Height
A50 - A190	310	13½	11⅛	3
B50 - B200 A200 - A390	320	14⅜	12¼	3
A410 - A510, A510-VG A710, A710-VG & A780	350	18 7/16	14 15/16	3
A-700	700	24 3/16	12¼	3
A900 - A1550	360	24 3/16	14 15/16	3

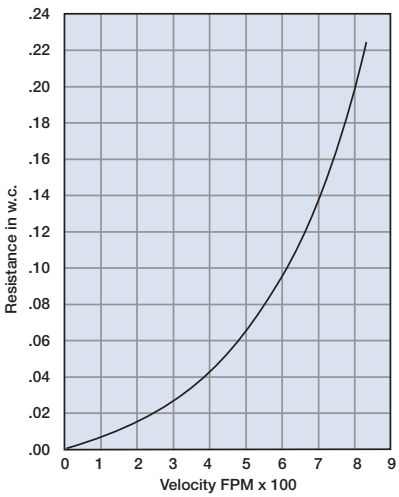
All dimensions are in inches.

Filters

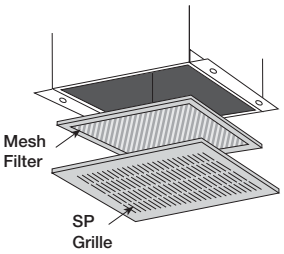
Fans used in most applications, even where air is not excessively dirty, will collect airborne dirt on wheels and motors over time. Accumulations of dirt on the fan wheel will sharply reduce performance and cause imbalance. Dirt buildup on the motor can cause it to overheat. All of these conditions will shorten the life of the fan. To help reduce this accumulation, washable aluminum mesh filters are available to trap dirt before it enters the fan. These filters should be regularly cleaned to maintain performance. The Filter Loss Chart shows the effect the filter will have on performance. To determine the added resistance, divide the desired cfm by the filter area (ft^2). This will give FPM. Use this with the filter loss chart to determine the added resistance.

In addition to reducing dirt accumulations on the motor and wheel, filters also reduce sound levels.

Filter Loss Chart



SP Model	Filter Model		Filter Area (ft^2)
	Designer Grille	Stainless Steel or Aluminum Grille	
SP-B50 - B200, A200 - A390	F-200	F-220	0.911
SP-A50 - A190	F-200	F-210	0.739
SP-A410 - A510, A510-VG, A710, A710-VG - A780	Not Available	F-250	1.518
SP-A900 - A1550		F-260	2.078



Grilles for Model SP

Designer

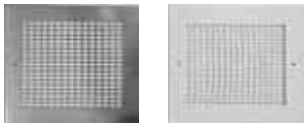
Standard on B50-B200, A50-A390

White polystyrene finish. With or without motion detector with time delay.

Decorative

Optional on B50-B200, A50-A390

White plastic finish, with or without light, motion detector with time delay. Lighted grille optional with prismatic or frosted lens.



Stainless Steel

Optional on B50-B200, A50-A390

Polished stainless steel finish.

Aluminum

Standard on A410 - A1550, A510-VG, A710-VG

Optional on B50-B200, A50-A390

White enamel finish.

GREENHECK
Building Value in Air.

school support

Complete, cost-effective air systems.

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2. *Roof Upblast*
3. *Louvered Gravity Ventilator*
4. *Equipment Screen*
5. *Laboratory Exhaust System*
6. *Spun Aluminum Roof Exhaust*
7. *Hooded Gravity Ventilator*
8. *Centrifugal Inline Fan*
9. *Ceiling Exhaust Fan*
10. *Louver*
11. *Intake Damper*
12. *Utility Fan*
13. *Make-Up Air Unit*
14. *Upblast Roof Exhaust*
15. *Kitchen Hood*

School air control needs are complex and interrelated. When you equip for all applications — classrooms, labs, kitchen, cafeteria, pool, auditorium, gym — mixing and matching HVAC brands is not a value proposition. Greenheck products are designed to work together in complete, integrated systems that deliver value — quick, cost-saving installation; energy efficiency; quiet operation; comfort for staff and students; and results that school boards love. Our extensive testing ensures that you can select more products with certifications from AMCA, UL, cUL, ETL and CSA than from any other manufacturer. Engineering expertise and industry knowledge deliver value you can depend on, every school day. Contact your Greenheck representative today.

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Inline & Sidewall Exhaust Fans

BCF

BDF

UL/cUL 705 Power Ventilators
E40001 - BCF with TEFC motors
E40001 - BDF with TEFC motors

c UL us LISTED

Model BCF is AMCA Licensed for Air Performance

Model BDF is AMCA Licensed for Sound and Air Performance

Best Available Program

3 Days

Model BCF and BDF Belt Drive

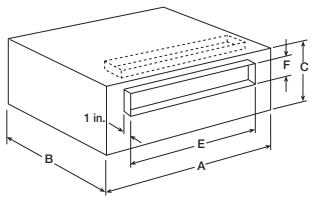
Centrifugal duct fans are designed for clean air inline exhaust or supply applications.

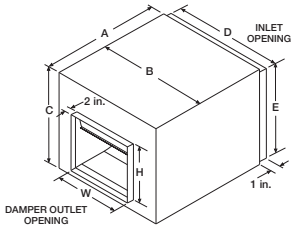
Quick Build Performance

BCF capacities range from 200 to 6,000 cfm and 1.5 in. wg of static pressure.
BDF capacities range from 300 to 15,000 cfm and 3 in. wg of static pressure.

Standard Construction	BCF	BDF
Housing - galvanized steel	■	■
Housing - low profile	■	
Housing - square		■
Drive frame secured to housing	■	■
Wheel - forward-curved, galvanized steel	■	■
Motor and scroll - mounted to drive frame	■	■
Access door - bolted, removable (BCF-108/208 and larger, all BDF)	■	■
Access door - hinged (BCF-106, 107, 206 and 207)	■	■
Corrosion-resistant fasteners	■	■
NEMA-1 disconnect switch	■	■
Ball bearing motor - 1/4 hp and larger	■	■
Double-studded vibration isolators	■	■
Flanges - inlet and outlet	■	■
Adjustable motor pulley	■	■
Options and Accessories	**BCF**	**BDF**
Damper	■	■
Isolators	■	■
Insulation	■	■
Filter box* - filters are throwaway (pleated) or permanent (aluminum mesh)	■	■
Mixing box	■	
NEMA rated disconnect switch	■	■
Dual drives	■	■
Multiple discharge positions*	■	■
Decorative or protective powder coating	■	■
UL/cUL Listed Power Ventilators	■	■

*see page 31 for additional information





Dimensions for BCF

Top horizontal discharge

Model Size	A	B	C	E	F
106	20	23¼	11	12	6
107	23	29	13	15	8
108	26	32	16	18	10
110	32	36	19	24	12
112	36	42	23	28	14
206	34	23¼	11	26	6
207	38	29	13	30	8
208	44	32	16	36	10
210	48	36	19	40	12
212	58	42	23	50	14

All dimensions are in inches.

Dimensions for BDF

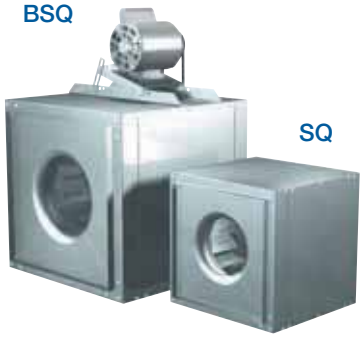
Bottom horizontal discharge

Model Size	A	B	C	Damper Outlet Opening (W x H)	Inlet Opening (D x E)
80	23¼	18½	15⅞	9¾ x 8⅞	15 3/16 x 12 11/16
90	24¼	21¼	18¾	12¼ x 10½	18¼ x 15⅞
100	26¼	22¾	20¾	13¾ x 11⅞	19¾ x 17⅞
120	33	27¼	22¾	16 x 13⅜	24⅛ x 19⅞
150	34¾	32⅝	27¾	19⅛ x 16⅜	28⅝ x 23⅞
180	40¼	41¾	31¾	22½ x 18⅞	37½ x 27⅞
200	50¼	49¼	39¾	23⅛ x 25¼	45⅛ x 36

All dimensions are in inches.

For comprehensive product information, including performance, access the product catalog found on www.greenheck.com or contact your local Greenheck representative.

BSQ



SQ

UL/cUL 705 Power Ventilators
E40001 - SQ and BSQ

c UL us LISTED

UL/cUL Listed 705 is standard on In Stock models.

Model SQ and BSQ are AMCA Licensed for Sound and Air Performance

Model	Best Available Program
SQ-75 through 120 and 140	In Stock
BSQ-70 through 120, 140 through 180 and 240	
SQ-60 through 70, 130 thru 160	1 Day
High Pressure SQ-130HP through 160HP	
BSQ-130 and 200	
High Pressure BSQ-130HP through 240HP	
BSQ-300 through 420	3 Days
High Pressure BSQ-300HP and 360HP	

Model SQ Direct Drive and BSQ Belt Drive

Centrifugal inline fans are designed for clean air exhaust or supply applications.

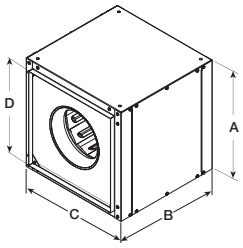
Quick Delivery / Quick Build Performance

SQ capacities range from 80 to 5,025 cfm and 1.75 in. wg of static pressure.
BSQ capacities range from 60 to 26,600 cfm and 4 in. wg of static pressure.

Standard Construction	SQ	BSQ
Housing - galvanized	■	■
Wheel - backward-inclined, aluminum	■	■
Access panel - bolted, removable	■	■
Corrosion-resistant fasteners	■	■
NEMA-1 disconnect switch	■	■
Ball bearing motor - 1/4 hp and larger	■	■
Three speed motor - sizes 60 through 95	■	
Adjustable motor plate		■
Flanges - inlet and outlet	■	■
Adjustable motor pulley		■

Options and Accessories	Stock	SQ	BSQ
Vari-Green® motor - 80% turndown, 85% efficient *Available as standard on select sizes*	✓	■	
Damper	✓	■	■
Aluminum housing		■	■
Motor cover		■	■
Guards - inlet, outlet		■	■
Speed control	✓	■	
Isolators - external	✓	■	■
Insulation - housing and motor cover		■	■
Filter box* - slide out		■	■
NEMA rated disconnect switch		■	■
Dual drives			■
Relubricatable bearings			■
Multiple discharge positions*		■	■
Decorative or protective powder coating		■	■
UL/cUL Listed Power Ventilators		■	■

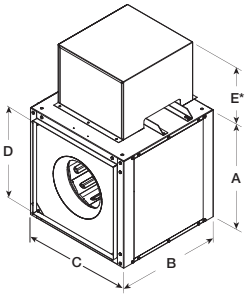
*see page 31 for additional information



Dimensions for SQ

Model Size	A & C	B	D
60, 65, 70, 75	12	13	8⅞
80, 85, 90 95	15	16	11⅞
97, 98, 99	15	21	11⅞
100	17	21	13⅞
120	19	21	15⅞
130, 130 HP	21	21	17⅞
140, 140 HP	23	22	19⅞
160, 160 HP	26	26	22⅞

All dimensions are in inches.



Dimensions for BSQ

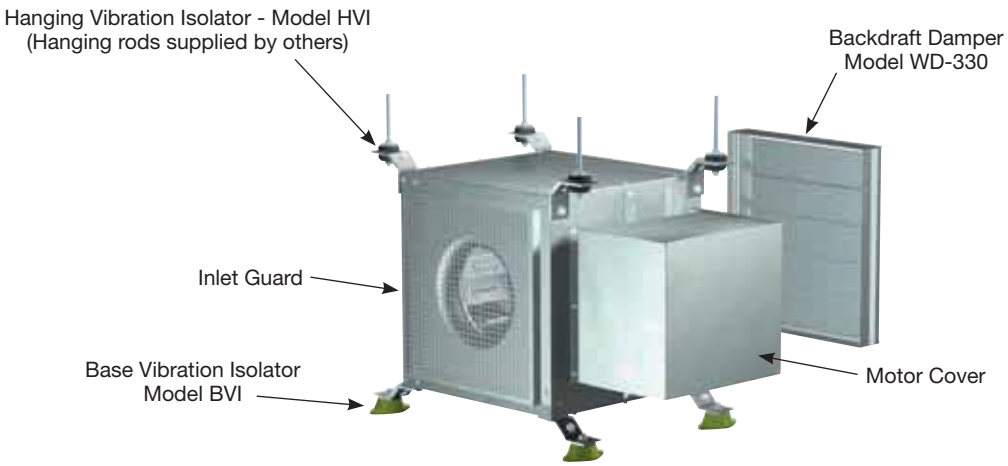
Model Size	A & C	B	D	H*
70, 80, 90	17⅛	21	11⅞	13¼
100	17⅛	21	13⅞	13¼
120	19⅛	21	15⅞	13¼
130, 130 HP	21⅛	21	17⅞	13¼
140, 140 HP	23⅛	22	19⅞	13¼
160, 160 HP	26⅛	26	22⅞	13¼
180, 180 HP	27⅛	28	23⅞	13¼
200, 200 HP	31⅛	32	27⅞	16
240, 240 HP	38⅛	34	34⅞	16
300, 300 HP	46	38	41⅞	18
360, 360 HP	52	42	47⅞	18
420	58	50	53⅞	18

All dimensions are in inches.
*Dimension may be greater depending on motor

VARI-GREEN Motor

Select sizes and models with the Vari-Green® motor are available in stock.

SQ and BSQ Options and Accessories



Side Discharge

The side discharge option provides several advantages from removing a system effect problem, to increasing performance and even reducing installation labor.

The most notable is reducing system effect. Refer to Figure 1. It shows the air being discharged into the corner. It will take several duct lengths before the airflow becomes laminar or smooth again after making the turn.

In Figure 2, the fan is placed in the corner using a side discharge. In this configuration the airflow pattern at discharge is smooth and supports a more predictable system. Remember the duct length on the discharge side should be approximately two to three wheel diameters to achieve catalog performance.

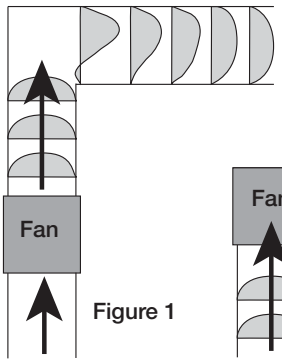


Figure 1

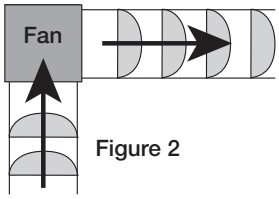


Figure 2

Multiple Discharge Positions

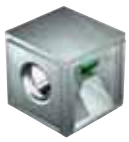
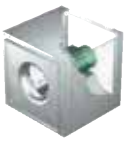
BCF fans are available with either top horizontal or upblast discharge positions.

BDF fans have been designed for horizontal mounting and are standard with a bottom horizontal discharge. Optional top horizontal discharge is also available.

SQ and BSQ fans are available with right side discharge, left side discharge, inline discharge positions, or a combination of right, left and inline positions.

BCF Discharge Positions	
Top Horizontal	Upblast
	

BDF Discharge Positions	
Bottom Horizontal	Top Horizontal
	

SQ and BSQ Discharge Positions			
Right Side	Left Side	Inline	Combination
			

Filter Box

Filter boxes incorporate a V-bank design constructed of galvanized steel. Filters are available in 1 or 2 inch throwaway (pleated) or permanent (washable aluminum mesh). Side access panels are standard for easy maintenance.

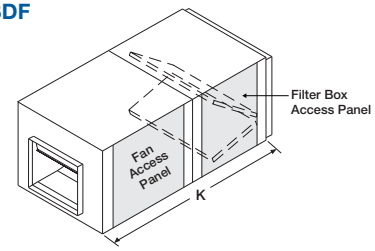
Slanted Filter

Double V-Bank Filter

Aluminum Mesh Filter

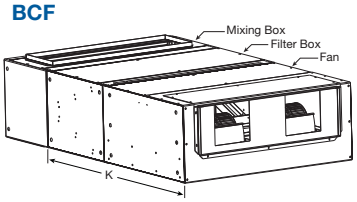
All dimensions are in inches.
The K dimension equals the length of fan and filter box combined.

BDF



Model Size	K	Filter Size	No. of Filters
80	49¾	16 x 20	2
90	54⅞	20 x 25	2
100	51⅞	20 x 20	2
120	63⁹⁄₁₆	12 x 25	4
150	62¹⁄₁₆	16 x 20	8
180	75⅜	20 x 25	6
200	85¼	16 x 25	12

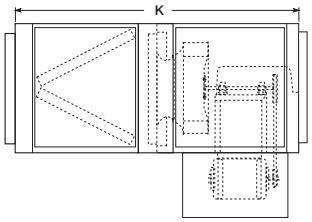
BCF



Model Size		K	Filter Size		No. of Filters	
Single Fan	Double Fan		Single Fan	Double Fan	Single Fan	Double Fan
106	206	45½	16 x 20	20 x 20	1	1
107	207	52	16 x 20	16 x 20	1	2
108	208	56	16 x 20	16 x 20	2	4
110	210	61	20 x 20	20 x 20	2	4
112	212	65	16 x 20	20 x 25	4	4

For slide-out filter box information, refer to BCF catalog.

SQ, BSQ



SQ			
Model Size	K	Filter Size	No. of Filters
60, 65, 70, 75	22⅛	10 x 12	1
80, 95, 90, 95	45⅝	14 x 25	1
97, 98, 99	50⅝	14 x 25	1
100	47¼	16 x 20	2
120	52³⁄₁₆	16 x 25	2
130, 130HP	46⅜	20 x 20	2
140, 140HP	52⅜	20 x 25	2
160, 160HP	51⅜	20 x 20	4

BSQ			
Model Size	K	Filter Size	No. of Filters
70, 80, 90	50⅝	14 x 25	1
100	47¼	16 x 20	2
120	52³⁄₁₆	16 x 25	2
130, 130HP	46⅜	20 x 20	2
140, 140HP	52⅜	20 x 25	2
160, 160HP	51⅜	20 x 20	4
180, 180HP	55¹⁄₁₆	20 x 25	4
200, 200HP	66¹¹⁄₁₆	12 x 25	3
		16 x 25	3
240, 240HP	68⅞	20 x 25	4
		16 x 25	4
300, 300HP	72⅛	20 x 25	8
360, 360HP	79¼	16 x 25	10
		20 x 25	5
420	93⅛	16 x 25	5
		20 x 25	10

Insulated Housing

The interior of the fan housing and filter box can be lined with a fiberglass duct liner for noise reduction and condensation control. The duct liner can be utilized to reduce radiated noise from inline fan housings. It is recommended for applications when fans are placed in acoustically sensitive locations. The duct liner also reduces the noise radiating from the inlet and outlet of the fan.

UL/cUL 705 Power Ventilators
E40001 - TCB

UL 762 Power Ventilators for Restaurant Exhaust Appliances - MH11745 - TCB

c UL US LISTED

Model TCB is AMCA Licensed for Sound and Air Performance

Construction	Best Available Program
Standard	10 Days
With UL 762	15 Days

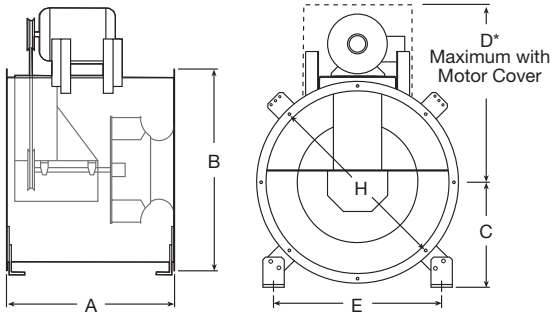
Model TCB Belt Drive

Tubular centrifugal inline fans are the ideal choice for installations with straight-through airflow in ducted systems. The centrifugal wheels used in this design provide higher efficiencies and lower sound levels than axial type inline fans when used in medium pressure ducted systems. These fans can be mounted in any position from horizontal to vertical, allowing installation in the smallest possible space at the lowest installation cost. Also available in roof supply and roof exhaust configurations.

Quick Build Performance

Capacities range from 300 to 26,000 cfm and up to 4.0 in. wg of static pressure.

Standard Construction	
Housing - continuously welded, steel	Spark B resistant construction
Wheel - backward-inclined, aluminum	Extended lube lines
Flanges - inlet and outlet with mounting holes	Minimum bearing life of L_{10} 80,000 hours (Average life - L_{50} 400,000 hours)
Universal mounting system	Permectector™ protective powder coating
Aluminum rub ring	
Options and Accessories	
All aluminum construction	Inspection section with removable access panel
Motor cover	
Belt guard	Dual drives
Guards - inlet, outlet	Mounting rails
Companion flanges - inlet, outlet	Decorative or protective powder coating
Isolators - base, hanging	UL/cUL Listed Power Ventilators
NEMA rated disconnect switch	UL Listed Power Ventilators for Restaurant Exhaust Appliances
Easy access construction - bolted	
Inspection door - bolted, hinged	



Dimensions for TCB

Model Size	A	B	C	D*	E	H
9	23	21⅝	13¼	21¾	17⅝	18⅜
10	23	21⅝	13¼	21¾	17⅝	18⅜
12	23	21⅝	13¼	21¾	17⅝	18⅜
13	24½	23⅝	13⅞	23¼	19	20⅜
16	28½	27⅝	16⅛	26	21⅞	24⅜
18	31	33⅝	18⅜	29¼	26⅛	30⅜
22	35½	39⅝	22½	33¾	30½	36⅜
24	42	45¾	24⅝	37¼	34¾	42½
30	48½	52¾	29½	42¾	42	48½
36	54	59¼	31¾	47¼	46¾	55

All dimensions are in inches.
*Dimension may vary depending on motor.

UL/cUL 705 Power Ventilators
E40001 - EQB

UL/cUL 705 is optional and must be specified.

Model EQB is AMCA Licensed for Sound and Air Performance

Best Available Program

10 Days

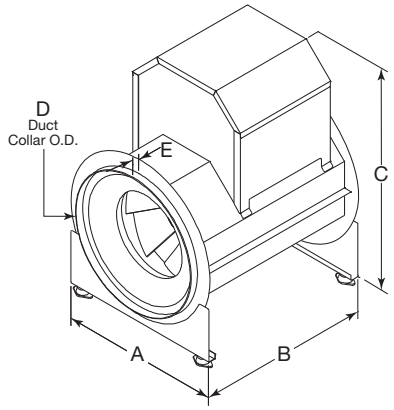
Model EQB Belt Drive

Model EQB is ideal when clean air, quiet and economical operation is required. The unique octagonal housing of formed galvanized steel panels provides for exceptional strength at significantly lower cost.

Quick Delivery / Quick Build Performance

Capacities range from 550 to 23,000 cfm and up to 3 in. wg of static pressure.

Standard Construction
Octagonal galvanized housing
Aluminum mixed flow wheel
EZ Tension System for belt adjustment
NEMA-1 disconnect switch
Options and Accessories
Motor cover
Inlet and outlet guards
Vibration isolators
Access doors
Extended wiring pigtail
Thrust restraints
UL/cUL Listed Power Ventilators



Dimensions for EQB

Model Size	A	B	C*	D	E
9	19⅜	22	28¾	14¼	1⅜
12	22⅝	26⅝	32¾	17½	1½
15	26⅜	29⅛	38	21⅛	1½
16	28¼	31⅛	32¾	17½	1½
18	30⅞	33⅛	42⅝	25⅝	1½
20	32⅞	35¾	47	28	1⅜
22	36⅜	39¼	49⅞	31¼	1⅜
24	40	42⅝	53¼	34¼	1⅜
27	42⅞	45⅛	58	37¾	1⅜
30	48	52¼	63⅞	42	1⅞

*Motor cover is optional. Size may be greater depending on motor.
All dimensions are in inches.

Patented QEI
USA Patent No. 7048499
China (P.R.) Patent No. CN1294361C
Mexico Patent No. 243465

UL/cUL 705 Power Ventilators
E40001 - QEI-I/II

UL/cUL 762 Power Ventilators for Restaurant Exhaust Appliances - MH11745 - QEI-I/II

UL/cUL Power Ventilators for Smoke Control Systems MH17511 - QEI-I/II, QEID

c UL US LISTED

Model QEI-I/II are AMCA Licensed for Sound and Air Performance

Best Available Program

10 Days

Model QEI-I/II Belt Drive

Mixed flow fans are for use in commercial and industrial applications that demand quiet, efficient and reliable air movement. Typical applications include office buildings, concert halls, libraries, parking garages, educational facilities and dormitories. Models can be used in exhaust, supply, and return-air; clean or contaminated air ventilation installations with continuous airstream temperatures up to 200°F. Units may be ceiling hung or floor mounted.

Quick Build Performance

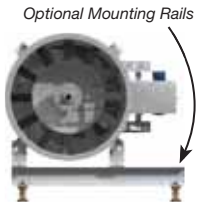
QEI-I/II capacities range from 500 to 50,000 cfm and up to 7.5 in. wg of static pressure.

Standard Construction	
Housing - continuously welded, steel	Minimum bearing life of L_{10} 80,000 hours (Average life - L_{50} 400,000 hours)
Impeller - mixed flow with steel blades	
Straightening vanes	Universal mounting system (sizes 9 - 27)
Access door - bolted	Final assembly vibration analysis
Slip-fit collar for duct connection	Extended lube lines - nylon
Belt guard	Permatector™ protective powder coating
Options and Accessories	
Totally enclosed belt guard	Mounting rails - horizontal and all vertical applications
Motor cover	
Guards - inlet, outlet	Decorative or protective powder coating
Flanges - inlet, outlet	UL/cUL Listed Power Ventilators
Isolators - base, hanging	UL/cUL Listed Power Ventilators for Restaurant Exhaust Appliances
Belt tube	
NEMA rated disconnect switch	UL/cUL Listed Power Ventilators for Smoke Control Systems
Copper lube lines	

Universal Mounting (Sizes 9-27)

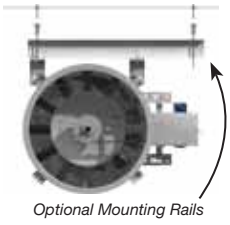
Universal QEI fans can be mounted vertically (ceiling hung or base mount) for either upward or downward airflow. Optional mounting rails are suggested for any vertical installation. One configuration for base mounting or ceiling hung applications. Allows for field rotation of motor position.

Horizontal Base Mount



Horizontal Base Mount with motor at C or G position

Horizontal Ceiling Hung



Horizontal Ceiling Hung with motor at C or G position

Horizontal Mounting (Sizes 30-40)

Available in horizontal and vertical configurations. Horizontal applications allow for field rotation of motor position.

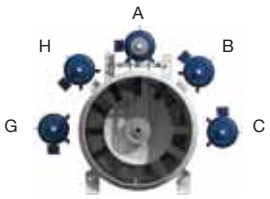
Vertical Mounting (Sizes 9-40)

Vertical mounting configurations, upblast or downblast, are provided with heavy-duty steel brackets welded to both ends. These brackets permit either floor or ceiling mounting on the same unit. Optional mounting rails are suggested for any vertical installation for sizes 9-27.

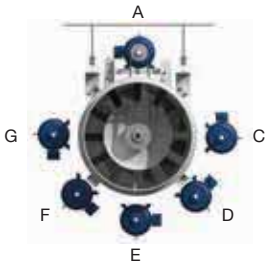
Vertical Base Mount

Motor Positions

determined from the discharge end



Horizontal Base Mount



Horizontal Ceiling Hung

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For comprehensive product information, including performance, access the product catalog found on www.greenheck.com or contact your local Greenheck representative.

Mixed Flow - QEI-I/II

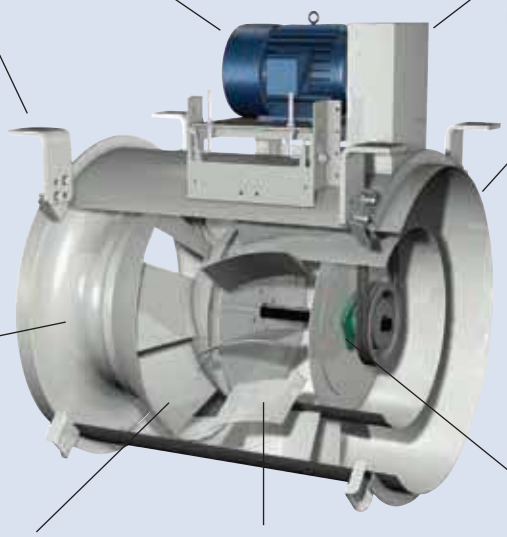
The mixed flow fan is a quiet, highly efficient alternative for inline ventilation. The unique axial/centrifugal hybrid impeller design captures the highly efficient “straight-through” airflow of vane axials and the lower sound levels of tubular centrifugal fans to provide an energy efficient product that won’t be a distraction in your ventilation system.

All motors are mounted on adjustable pivot bases for easy adjustments.

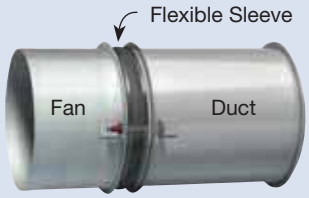
Flexible Universal Mounting System allows for field rotation of motor location.

Sealed belt guard protects personnel and minimizes air leakage around motor shaft.

Permatector™ coating is an industrial grade, electrostatic powder paint. Provides a durable, long lasting finish for interior or exterior applications.



Extended collar on inlet and outlet allow for quick and easy slip-fit duct connections to ductwork or plenum wall.



Integral, spun inlet cone provides even airflow into the impeller in ducted or non-ducted applications and helps to reduce system effects associated with uneven duct velocity profiles.

Cast, flange-mounted bearings are air-handling quality and use concentric bore locking systems for smooth operation. Bearings are selected for a minimum L_{10} life in excess of 80,000 hours at the maximum fan class RPM. (Average life - L_{50} 400,000 hours)

Mixed flow impellers are designed with single-thickness, cambered blades to maximize free area and efficiency. Tight wheel to cone tolerances further improve the mechanical efficiency.

Aerodynamically designed straightening vanes improve performance by converting kinetic energy of swirling air into useful static pressure.

Airflow Profiles

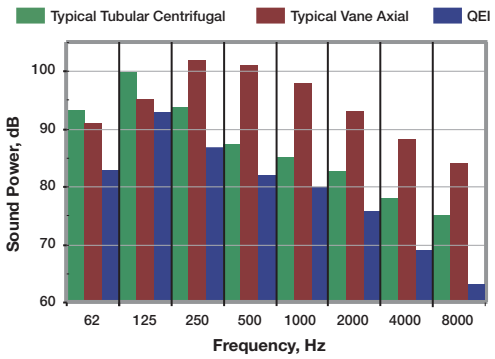
Centrifugal Fan: Two 90° deflections, before airflow exits the fan.

Axial Fan: Straight-through, nearly linear airflow.

Mixed Flow QEI Fan: Slight airflow defection from straight-through.

Lower Sound Power, Better Sound Quality

The sound quality of the QEI is as beneficial to low sound design as is the reduced overall sound power. The sound chart compares units of similar outer tube diameters at an operating point of 20,000 cfm with 1.5 inches wg of static pressure (Ps). Tubular centrifugals (green) have dominant tones in the 63 Hz through 250 Hz octave bands, while vane axials (red) have more mid to high frequency sound. The QEI does not have a dominant tone. A bystander would hear a more bland sound that is quieter than a tubular centrifugal or vane axial.



Model TDI Direct Drive

Model TDI direct drive tube axial fans are best suited for applications moving relatively clean, dry and cool air in commercial and industrial applications.

Quick Build Performance

Capacities range from 3,000 to 49,000 cfm and up to 1.1 in. wg of static pressure.

Applications:
- Clean Air
- Fume Exhaust
- Spark Resistant Construction

Model TBI-CA Belt Drive

Model TBI-CA belt drive is a good selection where the motor must be mounted out of the airstream. Used with temperatures up to 200°F or contaminated air. Three levels of construction available.

Quick Build Performance

Capacities range from 1,300 to 95,000 cfm and up to 3.5 in. wg of static pressure.

Applications:
- Clean Air
- Fume Exhaust
- Spark Resistant Construction

Model TBI-FS Belt Drive

Model TBI-FS belt drive fans have motors out of the airstream. They are a good choice for clean or contaminated airstreams with temperatures up to 400°F. Three levels of construction available.

Quick Build Performance

Capacities range from 6,000 to 77,000 cfm and up to 4.5 in. wg of static pressure.

Applications:
- Industrial Space
- Contaminated Air
- High Temperature Process
- UL/cUL Emergency Smoke

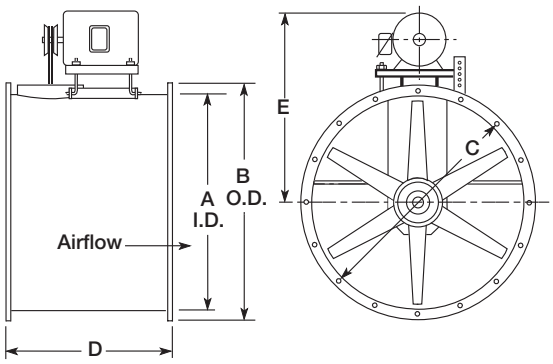
UL/cUL 705 Power Ventilators
E40001 - TDI and TBI-CA
UL/cUL Power Ventilators for Smoke Control Systems
MH17511 - TBI-FS

Model TDI and TBI-CA are AMCA Licensed for Air Performance

Model TBI-FS is AMCA Licensed for Sound and Air Performance

Best Available Program
10 Days

Standard Construction	TDI	TBI-CA	TBI-FS
Housing - continuously welded, steel	■	■	■
Cast aluminum hub and blades - airfoil	■	■	
Fabricated steel hub and blades - airfoil			■
Belt tube and bearing cover		■	■
Minimum bearing life of L_{10} 80,000 hours		■	■
Universal mounting system	■	■	■
Extended lubrication lines	■	■	■
Permatector™ protective powder coating	■	■	■
Options and Accessories	**TDI**	**TBI-CA**	**TBI-FS**
Motor cover		■	■
Guards - inlet, outlet	■	■	■
Belt guard		■	■
Companion flanges	■	■	■
Isolators - base, hanging, spring	■	■	■
Easy access construction - bolted		■	■
Inspection door - bolted, hinged	■	■	■
Inspection section with removable access panel	■	■	■
NEMA rated disconnect switch	■	■	■
Mounting rails		■	■
Shaft seal		■	■
Inlet bell	■	■	■
Decorative or protective powder coating	■	■	■
Continuous Duty High Temperature			■
UL/cUL Listed Power Ventilators	■	■	■



Dimensions for TDI, TBI-CA, TBI-FS

TDI • Level 3

Model Size	A (ID)	B (OD)	C (BC)	D
18	18⅜	21 1/16	19¾	18
20	20⅜	23 1/16	21¾	19
24	24⅜	27 1/16	25¾	19
30	30⅜	33 9/16	32	21
36	36⅜	39 9/16	38	21
42	42½	45¾	44¼	27
48	48½	52¾	50¾	27

TBI-CA • Level 3

Model Size	A (ID)	B (OD)	C (BC)	D	E
18	18⅜	21⅝	19¾	22	21¾
20	20⅜	23⅝	21¾	27	26¼
24	24⅜	27⅝	25¾	28	28
30	30⅜	33⅝	32	24	29¼
36	36⅜	39⅝	38	29	33¾
42	42½	45¾	44¼	30	37¼
48	48½	52¾	50¾	33	40½
54	55	59¼	57¼	37½	47¼
60	61	65¼	63¼	40	50¾

TBI-FS • Levels 3 and 4

Model Size	A (ID)	B (OD)	C (BC)	D	E
3L24, 3H24	24⅜	27⅝	25¾	23	26
4L24, 4H24				28	28
3L30, 3H30	30⅜	33⅝	32	24	29¼
4L30, 4H30				33	32¾
3L36, 3H36	36⅜	39⅝	38	29	33¾
4L36, 4H36				34	35¼
3L42, 3H42	42½	45¾	44¼	30	37¼
4L42, 4H42				39	40
3L48, 3H48	48½	52¾	50¾	33	40½
4L48, 4H48				44	45½
3L54, 3H54	55	59¼	57¼	37½	47¼
4L54, 4H54				48	49¼

All dimensions are in inches.

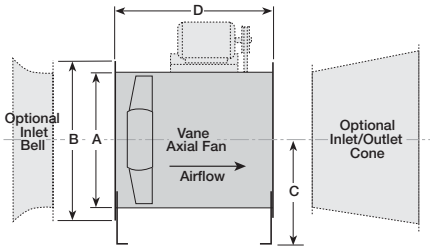
ID = Inside Diameter
OD = Outside Diameter
BC = Bolt Center

Arrangement 9

UL/cUL 705 Power Ventilators
E40001 - VAB

Model VAB is AMCA Licensed for Air Performance

Model	Best Available Program
Class I Sizes 18 - 48	10 Days



Dimensions for VAB

Model Size	A	B	C	D
18	18⅜	21¼	13½	32
20	20⅜	23¾	15	32
24	24⅜	27¾	17½	36
30	30⅜	33¾	21¼	40
36	36⅜	39¾	25	40
42	42½	47	29	44
48	48½	53	34	48

All dimensions are in inches.

Model VAB Belt Drive

Vane axial fans feature the advantages of final system balancing, motor access, manually adjustable blade pitch, economical future upgrading, and the capability to operate in airstream temperatures up to 200°F.

Quick Build Performance

Capacities range from 2,000 to 70,000 cfm and up to 7 in. wg of static pressure.

Standard Construction
Housing - continuously welded, steel
Cast aluminum hub and blades
Straightening vanes
Final assembly vibration analysis
Extended lubrication lines
Permatector™ protective powder coating
Options and Accessories
Motor cover
Guards - inlet, outlet
Belt guard
Companion flanges - inlet, outlet
Inlet/outlet cone
Isolators
Inspection section
NEMA rated disconnect switch
Inlet bell
Horizontal or vertical mounting options
Decorative or protective powder coating
UL/cUL Listed Power Ventilators

Mounting Options

Horizontal Base

Heavy-gauge steel support legs welded to the fan are punched to accept neoprene or spring vibration isolators.

Horizontal Ceiling Hung

Brackets welded to the fan housing for horizontal ceiling hung applications are punched to accept hanging neoprene or spring isolators.

Vertical Base or Suspension Brackets

Brackets welded to the fan housing for vertical base mount or vertical ceiling hung applications are punched to accept vibration isolators. Customer must specify one of the mounting arrangements shown below.

UBFM UBCH DBFM DBCH

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whole health.

Efficient air systems for sustainable hospitals.

1. *Mixed Flow Fan*
2. *Combination Louver/ Damper*
3. *Utility Fan*
4. *Spun Aluminum Roof Exhaust*
5. *Packaged Ventilation System*
6. *Laboratory Exhaust System*
7. *Centrifugal Inline Fan*
8. *Energy Recovery Ventilator*
9. *Spun Aluminum Upblast Exhaust Fan*
10. *Centrifugal Supply Fan*
11. *Louvered Equipment Screen*
12. *Make-Up Air*
13. *Centrifugal Inline Fan/ Fire Smoke Damper*
14. *Kitchen Hood*
15. *Utility Distribution System*

Today's hospital ventilation needs are more dynamic and demanding than ever, with increased focus on energy efficiency and sustainable building design concepts. To meet complex and interrelated demands throughout a medical facility, you must equip for a wide variety of critical, specialized applications — public areas, offices, surgery suites, highly sensitive equipment, patient rooms, laboratories, kitchen and cafeteria. Only an integrated HVAC system can provide the reliability and performance a hospital needs. Greenheck offers a comprehensive line of products, designed to work together, effectively, with energy efficiency and quiet operation, and the added benefit of simplified installation to save time and costs. We offer more products with certifications from AMCA, UL, ETL, AHRI and CSA than any other manufacturer. And, many Greenheck products can help attain LEED credits. Take a holistic and sustainable approach for your hospital project — contact your Greenheck representative today.

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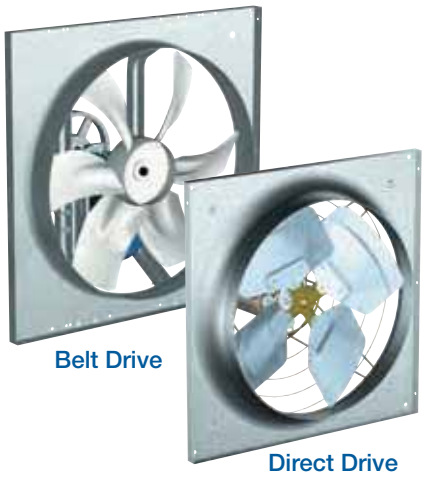

UL/cUL 705 Power Ventilators
E40001 - SE1/SS1, SE2/SS2, SCE3/SCS3, SBE/SBS, SBCE/SBCS

c UL US LISTED

UL/cUL Listed 705 is standard on In Stock SE1 and SBE models.

Model S1, S2, SC3, SB and SBC are AMCA Licensed for Sound and Air Performance

Model	Best Available Program
SE-8 through 12, 16 and 20	In Stock
SBE-24 through 36	
All SE/SS, SCE/SCS, SBE/SBS, SBCE/SBCS up through size 48	3 Days
All SE/SS, SCE/SCS, SBE/SBS, SBCE/SBCS sizes 54 and larger	5 Days

Model SE, SS, SCE, SCS Direct Drive and SBE, SBS, SBCE, SBCS Belt Drive

Sidewall propeller fans are designed to exhaust or supply high volumes of air from commercial and industrial buildings. Fan panels allow for electrical passage to either side of panel for easy wiring.

Quick Delivery / Quick Build Performance

Capacities range from 100 up to 87,000 cfm and 1 in. wg of static pressure.

			Direct Drive		Belt Drive	
Standard Construction			**SE SS**	**SCE SCS**	**SBE SBS**	**SBCE SBCS**
Fan panel and drive frame - galvanized steel			■	■	■	■
Propeller construction	Level 1	Stamped aluminum	■			
		Fabricated steel			■	
	Level 2	Fabricated steel	■		■	
	Level 3	Fabricated steel			■	
		Cast aluminum		■		■
Corrosion-resistance fasteners			■	■	■	■
Reversible				■		■
Ball bearing motor - 1/4 hp and larger			■	■	■	■
Three speed motor (sizes 8 through 12)			■			
Adjustable motor pulley					■	■
Options and Accessories		**Stock**	**SE SS**	**SCE SCS**	**SBE SBS**	**SBCE SBCS**
Vari-Green® motor - 80% turndown, 85% efficient *Available as standard on select sizes*		✓	■			
Dampers		✓	■	■	■	■
Wall housing - up through size 24		✓	■	■	■	■
Wall collar - Stock up through size 36		✓	■	■	■	■
Weatherhood 45° - up through size 24 and size 36		✓	■	■	■	■
Weatherhood 90° - up through size 16 and size 24		✓	■	■	■	■
Motor side guard - size 20 through 30		✓	■	■	■	■
OSHA motor side guard - size 16		✓	■	■	■	■
Louver/Fire damper - size 20 through 42					■	■
Damper guard			■	■	■	■
Horizontal mounting			■	■	■	■
Wiring - pigtails			■	■	■	■
Lube lines					■	■
Filters - 2 inch aluminum, washable - *supply only*			■	■	■	■
NEMA rated disconnect switch			■	■	■	■
Dual drives					■	■
Relubricatable bearings					■	■
OSHPD rated			■	■	■	■
Decorative or protective powder coating			■	■	■	■
UL/cUL Listed Power Ventilators			■	■	■	■

Select sizes and models with the Vari-Green® motor are available in stock.

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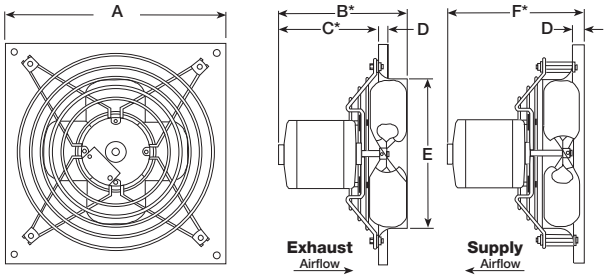
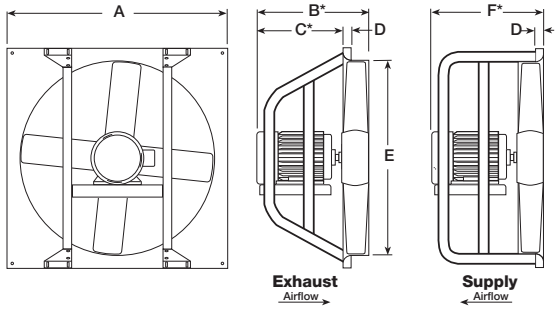
Direct Drive Models: SE, SS, SCE, SCS

Level 1: Sizes 8-12



Level 1: Sizes 12-24
Level 2: Sizes 16-54
Level 3: Sizes 20-54



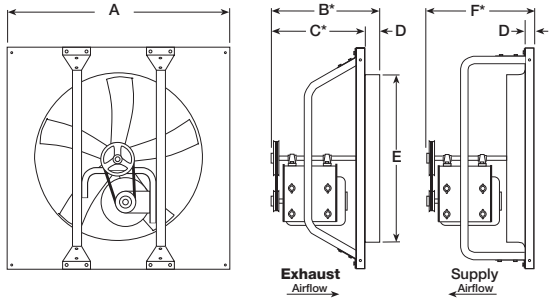
Dimensions for Direct Drive

Model Size	Fan Panel		Airflow			
	A	D	Exhaust			Supply
	Sq. Size	Flange	B*	C*	E	F*
8	13	1	7	5	8⅜	8
10	15	1	8¾	5	10⅜	8
12	18	1	10¾	8¼	12⅜	13⅛
14	20	1	11¼	8½	14⅜	14¼
16	22	1	11¾	10¼	16⅜	14
18	24	1	14	10⅞	18⅜	14¼
20	26	1	17¼	13½	20½	18
24	32	1¼	20	13½	24⅜	21
30	38	1¼	20½	16⅜	30⅝	21¾
36	44	2	20½	16⅜	36⅝	28
42	50	2	26	18¼	42⅝	28
48	56	2	26⅝	20⅝	48⅝	28½
54	62	2	28	22⁷⁄₁₆	55⅜	30⅛

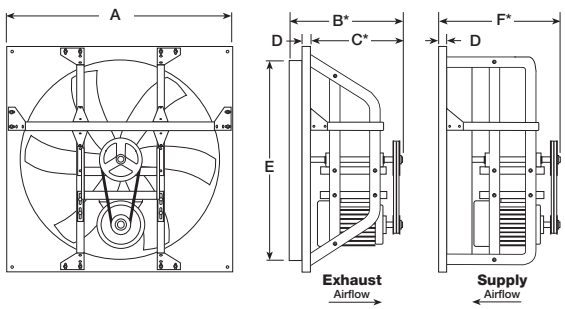
All dimensions are in inches.
*Varies with motor selection.

Belt Drive Models: SBE, SBS, SBCE, SBCS

Level 1: Sizes 20-54
Level 2: Sizes 20-60
Level 3: Sizes 24-30



Level 3: Sizes 36-72



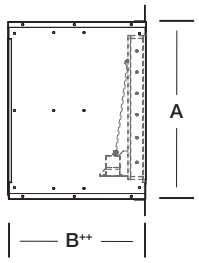
Dimensions for Belt Drive

Model Size	Fan Panel		Exhaust					Supply	
	Sq. Size	Flange	Levels 1 and 2		Level 3		All Levels	Levels 1 and 2	Level 3
	A	D	B*	C*	B*	C*	E	F*	F*
20	26	1	19½	16¼	—	—	20½	20	—
24	32	1¼	19½	16⅛	19	15⅝	24⅝	20	20½
30	38	1¼	22½	18¼	21½	17¼	30⅝	21	20
36	44	2	21½	16½	28	23	36⅝	22	27
42	50	2	25	20	28	23	42¾	25½	29¼
48	56	2	25	19	31½	27½	48¾	25½	30½
54	62	2	25	19½	35¾	30¼	55¼	24	36¼
60	68	2	28	21⁷⁄₁₆	35	28⁷⁄₁₆	61¼	24	35½
72	82	2⅛	—	—	35	28¼	73¼	—	35½

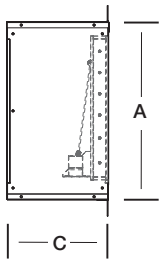
All dimensions are in inches.
* Varies with motor selection.

Options and Accessories for Sidewall Propeller Fans

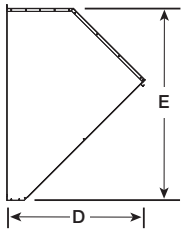
Wall Housing



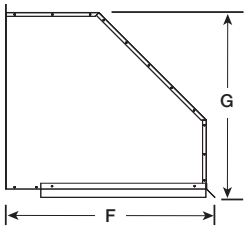
Wall Collar



45° Weatherhood

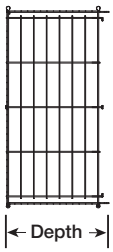


90° Weatherhood

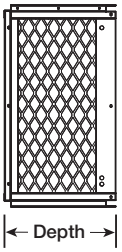


Motor Side Guards

Motor Side Guard



OSHA Motor Side Guard



Damper Guard

Optional Direct Drive Configuration

Optional Belt Drive Configuration

Dimensions

Model Size	Wall Opening*	Wall Housing & Collars			Weatherhood					Motor Side Guard	OSHA Motor Side Guard	Damper	Damper Guard
		Square	Length		Width	45°		90°					
		A	B++	C		D	E	F	G	Depth	Depth	Square	Depth
8	14¼	13¼	19	16⅛	10½	13¼	11¼	16⅜	12	—	9⅝	10	5½
10	16¼	15¼	19	16⅛	12½	14⅞	13⅜	18½	14	—	10	12	6½
12	19¼	18¼	23	16⅛	14½	16⅜	15⅝	20⅜	16⅜	—	12	14	5⅜
14	21¼	20¼	26	18⅜	16½	17½	17⅝	22½	18⅜	—	12	16	6⅜
16	23¼	22¼	27	18⅜	18½	19⅜	19⅝	25	20⅜	—	12	18	6¾
18	25¼	24¼	28	18⅜	20½	22	21⅝	27½	22⅜	—	12	20	6
20	27¼	26¼	32	18⅜	22½	24¾	23⅝	29¾	24⅜	17⅞	17¾	22	6½
24	33¾	32¼	37	18⅜	29⅛	26⅞	30⅜	36	31¾	19½	20	26	6⅜
30	39¾	38¼	38	18⅜	35⅛	29⅛	36½	40⅛	37⅞	22½	21¾	32	6½
36	45¾	44¼	39	18¾	41⅛	33	42½	45½	43⅞	23⅞	24¼	38	6¾
42	51¾	50⅜	44	18¾	47⅛	35¾	48½	49¼	49⅞	25⅞	28½	44	10
48	57¾	56⅜	44	18⅞	53¼	40⅜	54⅝	55½	56	28⅞	28¼	50	9
54	63¾	62⅜	52	20⅛	59½	44¾	60⅞	61¼	62¼	—	34¼	56	7½
60	69¾	68⅜	54	21	65⅝	48⅜	67	66½	68⅜	—	34¼	62	7¼
72	84¾	83⅛	60	22	78⅛	53¼	79½	72⅛	80⅞	—	34¼	74	7½

All dimensions are in inches.
*Opening is for fan and accessories to fit.
++Indicates short wall housing dimension. Add 6 inches for long wall housing. Add 10 inches for louver/fire damper.

Best Available Program

In Stock

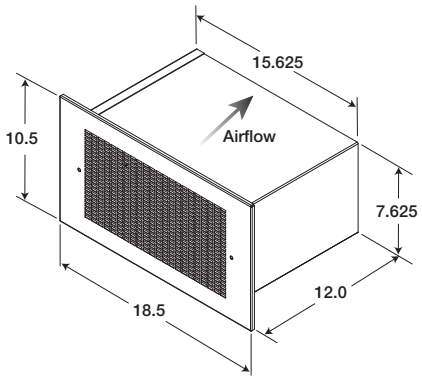
Model CBF Direct Drive

Cement block fans are designed for economy and reliability in small size, high volume applications. Efficient propeller, venturi, and motor design results in low sound levels with minimal restriction to airflow. Works great for ventilating equipment rooms, plumbing and electrical chases.

Quick Delivery Performance

Capacities range from 300 to 500 cfm and 0.4 in. wg of static pressure.

Standard Construction
Housing - galvanized steel
Fits in place of a standard 16 by 8 inch concrete block
Mountable in any wall construction
Mounting flanges for easy installation
Grille - galvanized steel
UL/cUL Recognized motor



All dimensions are in inches.

Utility and Centrifugal

Greenheck's tiered centrifugal product offering

Greenheck's tiered model approach gives you flexibility in size, performance and construction, matching the appropriate model to your application. Our centrifugal product line offers a variety of options in construction features, materials and performance by model.


SFD


SFB


SWD


SWB


USF-200


USF-300


USF-400


CSW


BIDW / AFDW
Double-Width

Quick Build Performance

Model Size	Maximum Capacities CFM	Static Pressure in. wg	Drive		Frame		Scroll Materials		
			Belt	Direct	Bolted	Welded	Galvanized	Coated Steel	Aluminum
SFD	2,600	2.5		3	3		3		
SFB	25,250	3.25	3			3		3	
SWD	4,730	2.5		3	3		3	3	3
SWB	11,000	3.5	3			3	3		
USF-200	10,000	5.5	3		3		3		
USF-300	53,000	5.5	3		3			3	
USF-400	66,000	9	3			3		3	
CSW-BI (7-49)	66,000	9	3	3		3		3	
CSW-AF (18-49)	70,000	9	3	3		3		3	
BIDW (12-49)	130,000	9	3			3		3	
AFDW (18-49)	135,000	9	3			3		3	

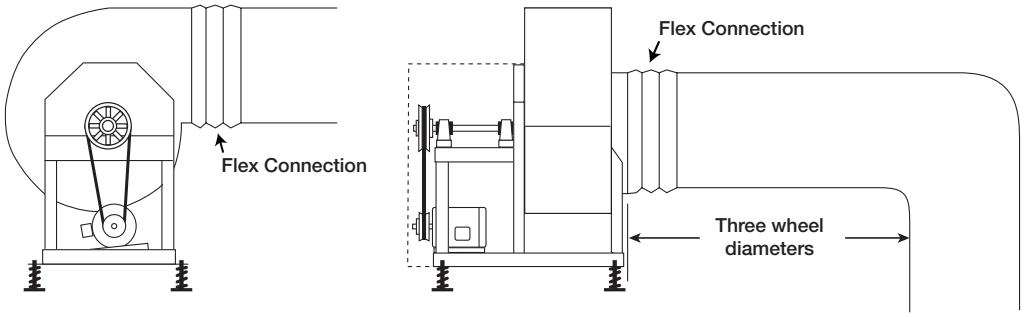
Vari-Green® Motor - SWD and SFD

Greenheck's electronically commutated (EC) Vari-Green (VG) motor combines motor technology, controllability and energy-efficiency into one single low maintenance unit and is the industry's first fully controllable motor. When combined with Greenheck's SWD/SFD fans, most of the CFM and static pressure ranges of a belt drive can be attained with the benefits of a direct drive.

Utility Fans Typical Installations

General Clean Air or Fume Hood (Non–Grease)

The SFD, SFB, SWD, SWB, USF and CSW models are designed for applications ranging from clean air to contaminated air. Installations must include a means for inspecting, cleaning and servicing the exhaust fan.



Commercial Kitchen (Grease)

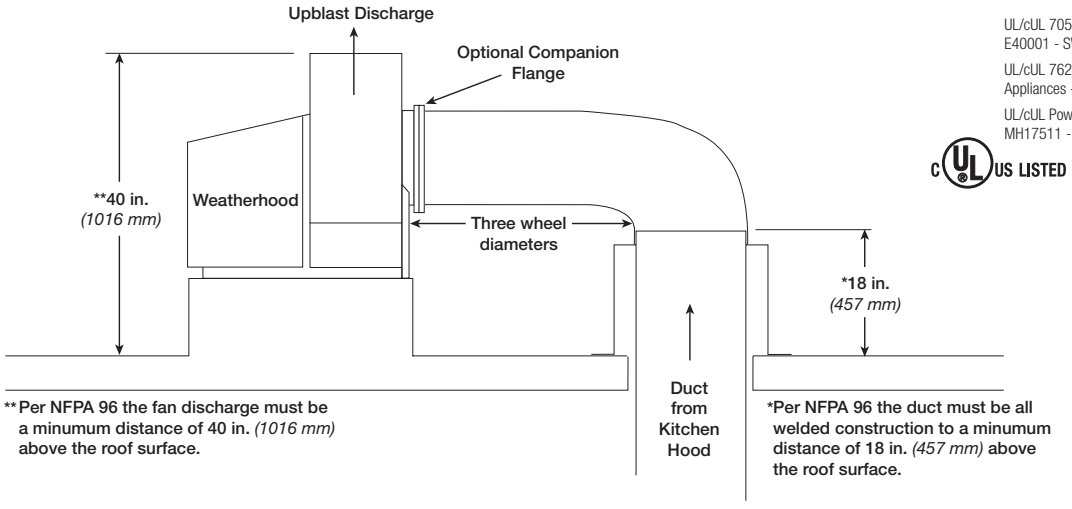
The USF-300, USF-400 and CSW are designed to meet restaurant and foodservice applications. These fans are UL/cUL Listed for grease removal and have been tested under elevated temperature conditions.

Due to high temperatures and grease-laden airstreams in commercial kitchen ventilation, system designers must be aware of governing codes and guidelines. The National Fire Protection Association (NFPA) is the primary source used by many local codes for commercial kitchen ventilation systems. Local code authorities should be consulted before proceeding with any kitchen ventilation project.

Installation must include a means for inspecting, cleaning and servicing the exhaust fan.

Fans selected for grease removal must include a weatherhood, access door and 1-inch (25 mm) drain connection. For grease applications where the fan is mounted indoors, the welded scroll option must be selected. An outlet guard is strongly recommended when the fan discharge is accessible. When an outlet guard is not ordered with the fan, it must be provided by the installer. An upblast discharge is recommended. No dampers are to be used in the system.

The fan discharge must be a minimum of 40 inches (1016 mm) above the roof line and the exhaust duct must be fully welded to a minimum distance of 18 inches (457 mm) above the roof surface.



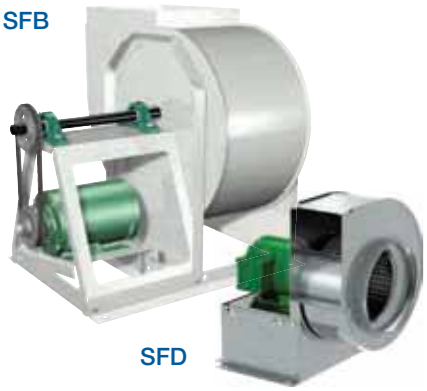
UL/cUL 705 Power Ventilators
E40001 - SWB, USF-200, -300, -400, CSW

UL/cUL 762 Power Ventilators for Restaurant Exhaust Appliances - MH11745 - SWB, USF-300, -400, CSW

UL/cUL Power Ventilators for Smoke Control Systems MH17511 - USF-300, -400, CSW

c UL us LISTED

SFB



SFD

UL/cUL 705 Power Ventilators
E40001 - SFD and SFB

Model SFD and SFB are AMCA Licensed for Air Performance

Best Available Program

5 Days

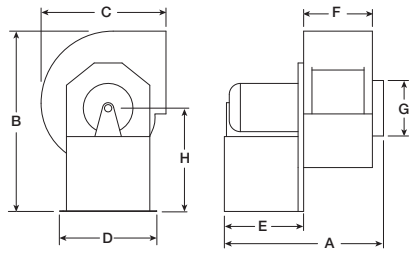
Select sizes and models with the Vari-Green® motor are available. (SFD only)

Model SFD Direct Drive and SFB Belt Drive

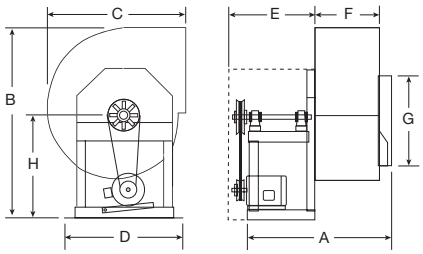
Centrifugal forward-curved utility fans are designed for applications requiring low to medium air volumes and pressures.

Standard Construction	SFD	SFB
Housing - heavy-gauge steel, lock-seam	■	■
Wheel - aluminum	■	
Wheel - steel, aluminum		■
Corrosion-resistant fasteners	■	■
Ball bearing motor - 1/4 hp and larger	■	■
Adjustable motor plate		■
Adjustable motor pulley		■
Permatector™ protective powder coating		■
Options and Accessories	**SFD**	**SFB**
Vari-Green® motor - 80% turndown, 85% efficient *Available as standard on select sizes*	■	
Damper	■	■
Speed control	■	
Isolators - base	■	■
Weatherhood	■	■
Multiple discharge positions - eight	■	■
Belt guard		■
Shaft seal with aluminum rub ring	■	■
Guards - inlet, outlet	■	■
Flanges - inlet, outlet		■
Lube lines		■
Drain connection	■	■
Access door - bolted, hinged	■	■
Dual drives		■
Relubricatable bearings		■
Decorative or protective powder coating	■	■
Certified for high wind and seismic applications	■	■
UL/cUL Listed Power Ventilators	■	■

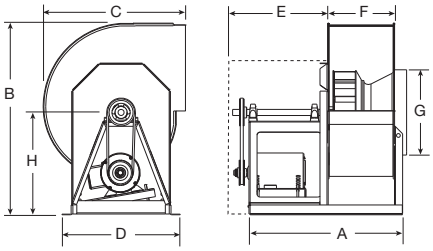
SFD



SFB 9



SFB 10 through 30



Dimensions for SFD

Model Size	A	B	C	D	E	F	G	H
6	14 11/16	16	11 1/4	11	8 1/8	5 1/4	6	9 1/16
7.5	14 5/16	18 1/16	13 11/16	12 1/4	8 1/8	5 1/4	8	9 5/8
9	17 7/8	20 5/16	15 13/16	13 3/4	10 3/8	6 1/4	10	10 3/4
10	19 3/8	24 5/16	18 5/8	16 1/4	11 3/8	6 3/4	12	12 3/4

All dimensions are in inches.

Dimensions for SFB

Model Size	A	B	C	D	E	F	G	H
9	20	24	16 7/8	14 1/4	15 1/2	6 5/8	10	13 3/4
10	26	26 5/8	19 3/8	16 7/8	15 1/2	8 1/2	11	15 1/8
12	26 1/2	28 3/8	21 3/8	16 7/8	15 1/2	9	13	15 1/8
15	32 5/8	31 1/4	23 3/8	18 7/8	21 3/4	12 3/4	15 3/8	16 5/8
18	36 7/8	42	30 7/8	25 1/8	22	17 3/4	19 1/4	22 3/8
20	37	46	33 5/8	27 3/8	23 3/4	15 7/8	21 1/8	24 1/2
22	39 5/8	52 1/2	36 3/4	30 3/4	24	17 1/2	23	28 3/4
25	41 1/2	57 3/4	40 3/8	33 5/8	25	19 1/2	25 7/8	31 1/2
27	46	61 1/8	44	37 5/8	27	21 3/8	28 1/2	33
30	48 1/4	68	48 3/4	41 1/8	27	23 3/8	31 3/4	36 5/8

All dimensions are in inches.

Model SWD Direct Drive

Centrifugal backward-inclined utility fans are designed for applications requiring medium to high air volumes and pressures. The wheel design provides the ability to build pressure without overloading.

- Scroll is galvanized non-painted construction
- Offered exclusively with Vari-Green® electronically commutated motors for energy efficiency and ease of control.

UL/cUL 705 Power Ventilators
E40001 - SWD

c UL US LISTED

Model SWD is AMCA Licensed for Air Performance

Best Available Program

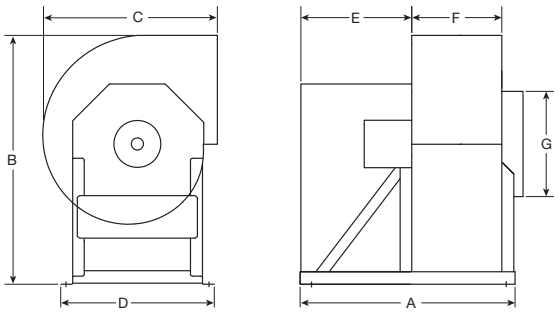
10 Days

All sizes feature the Vari-Green® motor as standard.

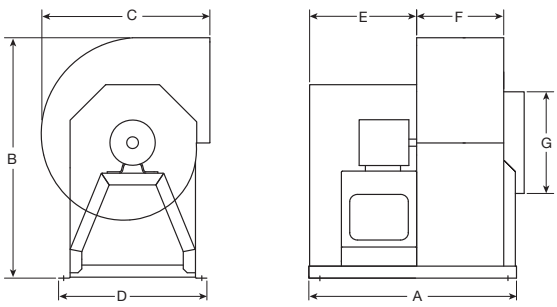
Standard Construction
Housing - heavy-gauge steel, lock-seam
Vari-Green® motor - 80% turndown, 85% efficient
Wheel - aluminum
Corrosion-resistant fasteners
Weatherhood

Options and Accessories	Stock
Welded scroll construction	
Aluminum construction	
Wheel rotation - clockwise or counterclockwise	
Damper	✓
Isolators - base	✓
Multiple discharge positions - eight	
Inlet vane damper	
Shaft seal with aluminum rub ring	
Guards - inlet, outlet	
Drain connection	
Access door - bolted, hinged	
Flanges - inlet, outlet, companion	
Decorative or protective powder coating	
UL/cUL Listed Power Ventilators	

SWD 7 through 10



SWD 13 through 18



Dimensions for SWD

Model Size	A	B	C	D	E	F	G
7	22⅞	26⅝	18¾	16⅞	12⅛	9¾	11
8	22⅞	26⅝	18¾	16⅞	12⅛	9¾	11
10	22⅞	26⅝	18¾	16⅞	12⅛	9¾	11
13	25⅜	31¼	23⅜	19⅜	13¾	10⅝	14
15	26⅜	34¾	25¾	21⅛	13¾	11⅝	15⅞
16	27½	38⅛	28	22⅞	13¾	12¾	17½
18	28⅞	42	30⅞	25	13¾	14⅛	19¼

All dimensions are in inches.

UL/cUL 705 Power Ventilators
E40001

UL/cUL 762 Power Ventilators for Restaurant Exhaust Appliances - MH11745

c UL us LISTED

Model SWB Series 100 is AMCA Licensed for Air Performance

Best Available Program

5 Days

Model SWB Belt Drive • Series 100

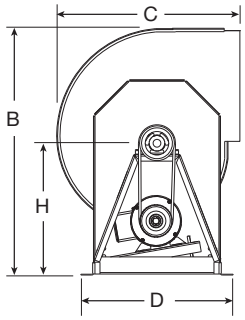
Centrifugal backward-inclined utility fans are designed for applications requiring medium to high air volumes and pressures. The wheel design provides the ability to build pressure without overloading.

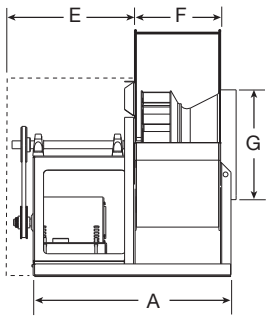
Series 100

- Scroll is galvanized non-painted construction
- Drive frame has Permatector™ protective powder coating

Standard Construction
Housing - heavy-gauge steel, lock-seam
Wheel - alumitnum
Corrosion-resistant fasteners
Ball bearing motor - 1/4 hp and larger
Adjustable motor plate
Adjustable motor pulley

Options and Accessories	Stock
Wheel rotation - clockwise or counterclockwise	
Damper	✓
Isolators - base	✓
Multiple discharge positions - eight	
Weatherhood	
Shaft seal with aluminum rub ring	
Guards - inlet, outlet	
Heat slinger	
Lube lines	
Drain connection	
Access door - bolted	
Flanges - inlet, outlet, companion	
Dual drives	
Relubricatable bearings	
Performance baffle	
Stainless steel shaft	
Certified for high wind and seismic applications	
UL/cUL Listed Power Ventilators	
UL/cUL Listed Power Ventilators for Restaurant Exhaust Appliances	





Dimensions for SWB • Series 100

Model Size	A	B	C	D	E	F	G	H
106, 107, 108, 110	26¾	26⅝	18¾	16⅞	15½	9¾	11	15⅛
113	30⅛	31¼	23⅜	18⅞	21¾	10⅝	14	16⅝
115	31¼	34¾	25¾	21⅛	21½	11⅝	15⅞	18½
116	32⅜	38⅛	28	22⅞	21½	12¾	17½	20⅜
118	34	42	30⅞	25	22	14⅛	19¼	22⅜
120	37	46	33⅝	27⅜	23¾	15⅜	21⅛	24½
124	41½	57¾	40⅝	33⅝	25	19	25⅞	31½

All dimensions are in inches.

Model USF Belt Drive

The USF tiered models 200, 300 and 400 offer multiple levels of construction for the best value to match the intended application and performance.

USF-200

USF-300

USF-400

USF-200
- Bolted construction using all galvanized material
- Used for inexpensive, clean air applications

USF-300
- Bolted construction, utilizing all painted steel material
- Used for grease, smoke and clean air applications

USF-400
- Welded construction, utilizing all painted steel material
- Used for grease, smoke and clean air applications
- Heavier construction and capable of higher performances than USF-300

Standard Construction	200	300	400
Housing - Permalock™ scroll	■	■	■
Wheel - USF-200 and 300, sizes 6-10, aluminum	■	■	
Wheel - USF-200, sizes 12-22, coated steel USF-300, sizes 12-49, coated steel USF-400, all sizes, coated steel	■	■	■
Corrosion-resistant fasteners	■	■	■
Ball bearing motor - 1/4 hp and larger	■	■	■
Motor pulley - constant or adjustable	■	■	■
Permatector™ protective powder coating		■	■
Options and Accessories	**200**	**300**	**400**
Welded scroll construction		■	■
Wheel rotation - clockwise or counterclockwise	■	■	■
Spark resistance - B or C		■	■
NEMA 3R disconnect	■	■	■
Isolators	■	■	■
Weatherhood	■	■	■
Shaft seal with aluminum rub ring		■	■
Guards - inlet, outlet	■	■	■
Heat slinger		■	■
Extended lube lines	■	■	■
Drain connection	■	■	■
Access door, bolted	■	■	■
Access door, hinged		■	■
Flanges - inlet, outlet, companion	■	■	■
Sheaves, multiple groove	■	■	■
Equipment supports	■	■	■
Decorative or protective powder coating		■	■
Certified for high wind applications		■	
Certified for seismic applications	■	■	
UL/cUL Listed Power Ventilators	■	■	■
UL/cUL Listed Power Ventilators for Restaurant Exhaust Appliances		■	■
UL/cUL Listed Power Ventilators for Smoke Control Systems		■	■

UL/cUL 705 Power Ventilators
E40001 - USF-200
USF-300
USF-400

UL/cUL 762 Power Ventilators for Restaurant Exhaust Appliances - MH11745 - USF-300
USF-400

UL/cUL Power Ventilators for Smoke Control Systems
MH17511 - USF-300
USF-400

c UL us LISTED

Model USF-207 thru 210, USF-307 thru 310, USF-327 thru 349 are AMCA Licensed for Air Performance

Model USF-212 thru 222, USF-312 thru 324, USF-400-BI thru USF449-BI and USF-418-AF thru USF-449-AF are AMCA Licensed for Sound and Air Performance

Best Available Program

5 Days

UL/cUL 705 - E40001 - CSW
UL/cUL 762 Power Ventilators for Restaurant Exhaust Appliances - MH11745 - CSW-BI
UL/cUL Power Ventilators for Smoke Control Systems MH17511 - CSW-BI

c UL us LISTED

Model CSW is AMCA Licensed for Sound and Air Performance

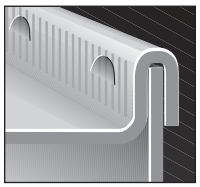
Model	Best Available Program
CSW Sizes 7 through 49	5 Days

Model CSW Single-Width, Direct Drive and Belt Drive

Centrifugal fans are designed for clean or contaminated ventilation applications up to 250°F. Units can be mounted (both indoor or outdoor) in ducted inlet and/or ducted outlet installations such as exhaust air, supply air, filtration, comfort conditioning, light industrial processes, fume exhaust, fluid bed pressurization and combustion air.

Standard Construction
Housing - heavy-gauge steel • Series 21 - PermaLock™ • Series 41 - welded
Direct drive, arrangement 4 Belt drive, arrangement 9, 10
Wheel, flat blade centrifugal, CSW-BI Wheel, airfoil centrifugal, CSW-AF
Rotatable housing (sizes 7 through 30)
Final assembly vibration analysis
Minimum bearing life of L_{10} 80,000 hours (Average life - L_{50} 400,000 hours)
Permatector™ protective powder coating
Options and Accessories
Guards - inlet, outlet
Motor cover (Arrangement 4)
Flanges - inlet, outlet, companion
Weatherhood (Arrangement 10)
Drain connection
Isolators - rubber, free standing and restrained
Isolation base
Spark B resistant construction (Arrangements 9, 10)
Spark C resistant construction (Arrangements 9, 10)
Shaft seal (Arrangements 9, 10)
Extended lube lines
Extended life bearings L_{10} 200,000 hours
UL/cUL Listed Power Ventilators
UL/cUL Listed Power Ventilators for Restaurant Exhaust Appliances (Arrangements 9, 10)
UL/cUL Listed Power Ventilators for Smoke Control Systems (Arrangments 9, 10)

Housing Construction



Series 21 PermaLock™ Housing

Features Greenheck's exclusive airtight PermaLock™ seam. This seam provides a structural bond between the side panels and scroll wrap.

Series 41 Welded Housing

Features a fully welded housing.

UL/cUL 705 - E40001 - BIDW, AFDW

Model BIDW and AFDW are AMCA Licensed for Sound and Air Performance

Model	Best Available Program
Through size 49 Up to Class II	10 Days

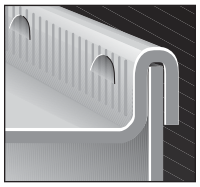
Model BIDW, AFDW Double-Width, Belt Drive

An excellent choice for exhaust air, supply air, filtration, heating, air conditioning, fluid bed pressurization, and make-up air handlers. Double width centrifugal wheel provides increased air volume capacity. Installed indoors without ducting to the inlets. Used in applications not requiring spark resistance or elevated temperatures.

Standard Construction
Housing - heavy-gauge steel • Series 21 - PermaLock™ • Series 41 - welded
Wheel, flat blade centrifugal, BIDW Wheel, airfoil centrifugal, AFDW
Rotatable housing (sizes 7 through 30)
Final assembly vibration analysis
Minimum bearing life of L_{10} 80,000 hours (Average life - L_{50} 400,000 hours)
Permatector™ protective powder coating
Options and Accessories
Guards - inlet, outlet, shaft
Flanges - outlet, companion
Totally enclosed belt guard (with Greenheck supplied motor and drives)
Drain connection
Isolators
Isolation base with motor slide base
Access door - bolted, hinged
Extended lube lines
Extended life bearings L_{10} 200,000 hours
UL/cUL Listed Power Ventilators

*Arrangements 3 must be mounted on an Isolation Base. See Greenheck's Isolation Base information on page 95 for additional details or visit www.greenheck.com

Housing Construction



Series 21 PermaLock™ Housing

Features Greenheck's exclusive airtight PermaLock™ seam. This seam provides a structural bond between the side panels and scroll wrap.

Series 41 Welded Housing

Features a fully welded housing.

Centrifugal Fans - Selection Guide

Fan Width

Single-Width (SW) Single-Inlet, Single-Outlet

- Used in a wide range of applications
- Contaminated air, elevated temperatures, moisture content, kitchen exhaust, fume exhaust
- Typically used in ducted-in / ducted-out applications, but can be unducted at either end as needed

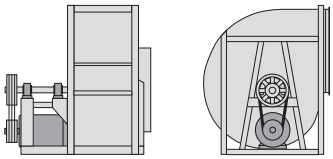
Double-Width (DW) Double-Inlet, Single-Outlet

- Generally used for high volume applications or air handlers
- Clean air applications only due to bearings being located in the airstream
- Typically applied indoors or in air handler as free inlet - ducted outlet

Spark Resistant Construction

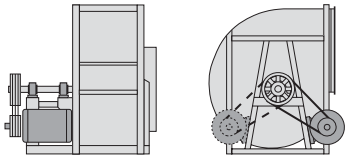
- Spark C - Includes aluminum inlet cone and rub ring
- Spark B - Includes aluminum wheel and rub ring

ARRANGEMENT 10
SINGLE-WIDTH
Backward-Inclined or Airfoil Wheel



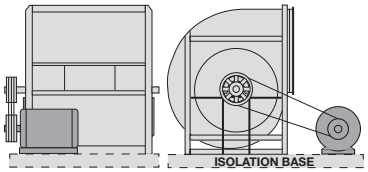
Arrangement 10 is the most common fan arrangement. Motor is mounted on the fan under the bearing pedestal and can be enclosed with a motor cover, limited motor frame sizes, smallest overall package size. No mounting base required.

ARRANGEMENT 9
SINGLE-WIDTH
Backward-Inclined or Airfoil Wheel



Motor is mounted on the side of the bearing pedestal with increased limit over arrangement 10. Isolation base required (by factory).

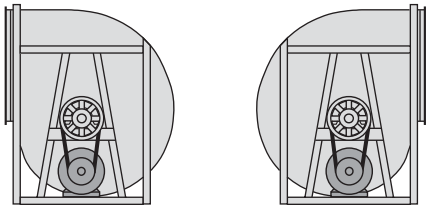
ARRANGEMENT 3
DOUBLE-WIDTH
Backward-Inclined or Airfoil Wheel



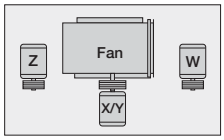
Double-width (when compared to single-width) can supply an equal amount of air with a smaller wheel diameter resulting in lower overall unit size. Bearing located in the airstream limits temperatures and does not permit spark resistant construction. Requires an isolation base (by factory) or structural pad to mount the fan and motor.
See page 95 more details.

Rotation

Choice between clockwise (CW) and counterclockwise (CCW) as determined from the drive side. Rotation changes discharge location as illustrated below.



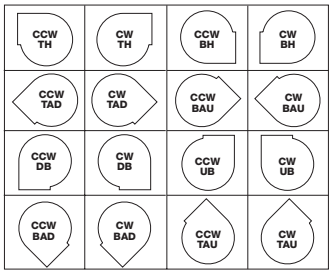
Motor Positions (Arrangement 3)



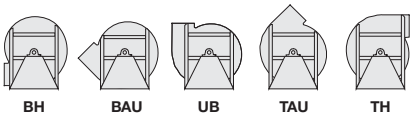
Motor position determined from the drive side. Letter assignment is independent of discharge position and fan rotation.

Discharge Positions

Utility Fans - determined from the drive side. Some models and sizes allow for field rotation.



Centrifugal Fans - graphic shows discharge positions available on Quick Build centrifugal fans. Determined from the drive side. Some models and sizes allow for field rotation.



Wheel Types

Backward-Inclined Wheel
Centrifugal, non-overloading style with single-thickness flat blades. Most versatile wheel. Excellent for clean, high-temperature, or contaminated air.

Airfoil Wheel
Centrifugal, non-overloading style with airfoil shaped blades. Higher operating efficiencies. Used for clean air applications.

Plenum

APD-24
Arrg. 4

APH-24
Arrg. 1

APM-24
Arrg. 4

Model APD is AMCA Licensed for Air and Sound Performance and Efficiency

Model APH and APM are AMCA Licensed for Sound and Air Performance

Best Available Program

5 Days

Models APD, APH and APM Direct and Belt Drive

Plenum fans are designed for clean air handling applications where the fan operates unhoused within a pressurized plenum with airstream temperatures up to 200°F. The compact size of the plenum fan makes it an excellent selection for retrofit and replacement applications and in variable air volume systems.

Quick Build Performance

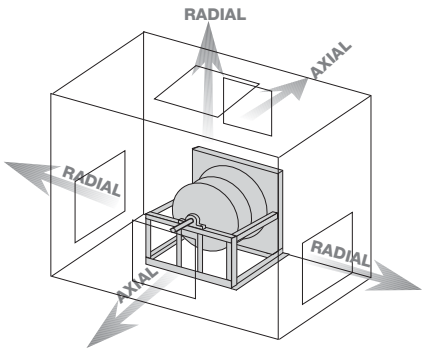
Capacities up to 70,000 cfm and 7 in. wg of static pressure.

Standard Construction	APD	APH	APM
Wheel - powder coated steel, backward curved, 7-bladed	■		
Wheel - aluminum, airfoil, 12-bladed		■	■
Heavy-gauge spun inlet cone	■	■	■
Minimum bearing life of L_{10} 80,000 hours (Average life - L_{50} 400,000 hours)		■	
Minimum bearing life of L_{10} 40,000 (80,000 optional) hours (Average life - L_{50} 400,000 hours)			■
Final assembly vibration analysis	■	■	Optional
Options and Accessories			
Protective cage		■	■
Guard - inlet	■	■	■
Totally enclosed belt guard		■	■
Inlet collars, flanges, and screens		■	■
Extended lube line kit		■	■
Decorative or protective powder coating		■	■
Isolation base		■	■
Sure-Aire™, airflow monitoring	■	■	■

	Mounting	Model	Arrangement
 APH	Horizontal* Motor on Base Belt Drive	APH	1, 3
 APM	Horizontal** Motor on Frame (Top) Belt Drive	APH, APM	3
 APH	Horizontal** Motor on Frame (Side) Belt Drive	APH, APM	3
 APD	Horizontal Direct Drive	APD, APH, APM	4

*Arrangement 1 & 3 units with horizontal mounting must be mounted on an isolation base.
**Not available with isolation base.

Typical Installation



For comprehensive product information, including performance, access the product catalog found on www.greenheck.com or contact your local Greenheck representative.

GREENHECK
Building Value in Air.

Fume and Laboratory Exhaust Systems

UL/cUL 705 Power Ventilators
E40001 - FJC, FJI

c UL us LISTED

Model FJC sizes 6-8 are AMCA Licensed for Air Performance

Model FJC sizes 12-15 and FJI are AMCA Licensed for Sound and Air Performance

Model	Best Available Program
FJC	5 Days
FJI	10 Days

Model FJC (Commercial) Belt Drive and FJI (Industrial) Belt Drive and Direct Drive

Greenheck's FumeJet® line of exhaust fans with integral stacks are designed to safely remove and disperse fumes and odors. FumeJet systems replace utility set fans with field-supplied intake ducts and exhaust stacks to ensure a safe roof deck area and aid in preventing re-entrainment of contaminated air into air intake systems. The fan and stack have been designed and factory tested to withstand a force of 92 mph (22 PSF) without the need for guy wires.

Quick Build Performance

Capacities range from 250 to 18,000 cfm and up to 9 in. wg of static pressure.

Standard Construction	FJC-200	FJC-300	FJI
Housing construction, Permalock™	■	■	■
Housing construction, welded			■
Material type - galvanized steel	■		
Material type - coated steel		■	■
Temperature limit	250°F (121°C)	400°F (204°C)	500 (204°C)
Arrangement 4			■
Arrangement 10	■	■	
Wheel, backward inclined	■	■	
Minimum bearing life of L_{10} 80,000 hours (Average life - L_{50} 400,000 hours)	■	■	■
Weatherhood	■	■	■
Slip-fit collar for inlet connection	■	■	
Drain connection	■	■	■
Options and Accessories	**200**	**300**	**FJI**
Shaft seal - felt, neoprene	■	■	■
Spark B or C resistant construction		■	■
NEMA-3R disconnect	■	■	■
Mounting - equipment supports	■	■	■
Access door, bolted	■	■	■
Access door, hinged		■	■
Certified for seismic applications	■	■	

Discharge Options

Straight Stack

Clean design with uniform straight discharge stack. Most economical discharge option.

Fixed Nozzle

Tapered nozzle discharge increases outlet velocity sending exhaust fumes higher above the roof deck area. Does not negatively impact fan performance.

Adjustable Nozzle

Allows the user to adjust the discharge area based on installed conditions. Four blade positions available.

Features include:

- 7 foot (2.1m) discharge height
- No guy wires (92 mph wind speed)
- Quick installation

Applications include:

- Grease/Smoke
- Food Processing
- Wastewater/Odor
- Diesel Generator Exhaust
- Industrial Process
- Hospital Clinic
- Sterlization

FumeJet with restrained isolators and GESS equipment supports

*FumeJet with curb cap inlet box and GPFHL roof curb

Exploded views reflect shipping splits and minimal on-site assembly required for FumeJet systems.

**Unit shown with inlet box on roof curb is not available on QB program.*

Model Vektor®-H

Vektor-H models use a conical outlet nozzle to accelerate the exhaust to a high velocity. This provides the exhaust with additional momentum for displacement high above the roof. The Vektor-H is a curb-mounted, self-contained unit, so installation time is reduced by eliminating costly field fabricated inlet and outlet duct. The optional bypass air plenum and damper accommodates constant and variable volume laboratories.

UL/cUL 705 Power Ventilators
E40001 - Vektor-H

UL 762 Power Ventilators for Restaurant Exhaust Appliances - MH11745 - Vektor-H

Model Vektor-H is AMCA Licensed for Sound and Air Performance

Best Available Program

15 Days

Quick Build Performance

Housing Style	Inline Centrifugal
Stack Style	High Plume Nozzle
Minimum Flow	270 cfm (459 m^3/hr)
Maximum Flow	24,000 cfm (40,776 m^3/hr)
Maximum ESP	Up to 3.5 in. wg (875 Pa)

Standard Construction
Steel construction
LabCoat™ - a two-part electrostatically applied coating
Belt drive configuration
Designed and guaranteed to withstand 125 mph wind load ratings
Constant speed drives
Premium efficient, totally enclosed fan cooled motors, Class F insulation, VFD compatible
Spark B resistant construction
Minimum bearing life of L_{10} 100,000 hours
Aluminum wheel and shaft seal
Options and Accessories
NEMA-3R disconnect
Roof curb (12-, 18-, or 24-inch high)
Bypass air plenum - bottom or side inlet
Factory mounted actuators - manual, electric
Isolation dampers
Bypass dampers
Certified for high wind applications
UL/cUL Listed Power Ventilators
UL Listed Power Ventilators for Restaurant Exhaust Appliances

Performance for Vektor-H

Model Size		9	10	12	13	16	18	22	24	30	36
Minimum CFM		270	450	600	810	1050	1320	1650	2760	3690	5310
Maximum CFM		1750	1800	2640	3160	7080	7880	10560	14760	19640	24000
Plume Rise at 3000 (ft./min.)	Minimum (ft.)	14	15	16	17	18	19	20	22	24	26
	Maximum (ft.)	19	19	20	21	25	26	30	33	37	42

Performance certified is for installation type A: Free Inlet, Free outlet. Performance ratings do not include the effects of appurtenances (accessories). Power rating (Bhp) does not include transmission losses. Plume rise calculated assuming a 10 mph crosswind. 3,000 ft./min. is the minimum recommended outlet velocity per ANSI Z9.5. The AMCA Certified Ratings Seal does not apply to plume rise.

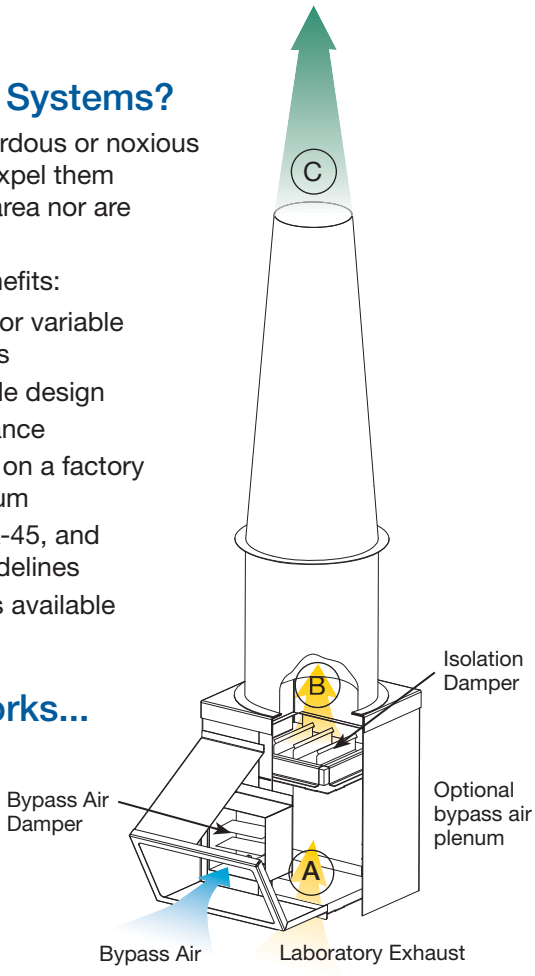
For a full range of fan performance, consult the Laboratory Exhaust Systems, Vektor-H Performance Supplement. (00.LAB.NB002 R3 4-2017)

Why use Greenheck Vektor Laboratory Exhaust Systems?

The main objective of a laboratory exhaust system is to remove hazardous or noxious fumes from a laboratory, dilute the fumes as much as possible and expel them from the lab building so that the fumes do not contaminate the roof area nor are re-entrained into the building makeup air system.

Greenheck Vektor laboratory exhaust systems offer the following benefits:

- Significant plume rise without unsightly exhaust stacks that detract from the buildings aesthetics
- Significant dilution of laboratory exhaust effluent, reducing contaminant concentration
- Inline or side inlet centrifugal arrangements
- Reliable drive systems
- Efficient and quiet blower technology
- Application to constant or variable volume exhaust systems
- Efficient discharge nozzle design
- Safe and easy maintenance
- Multiple fan assemblies on a factory provided common plenum
- Meets ANSI Z9.5, NFPA-45, and ASHRAE lab design guidelines
- Energy recovery options available



How Vektor High Plume Dilution Technology Works...

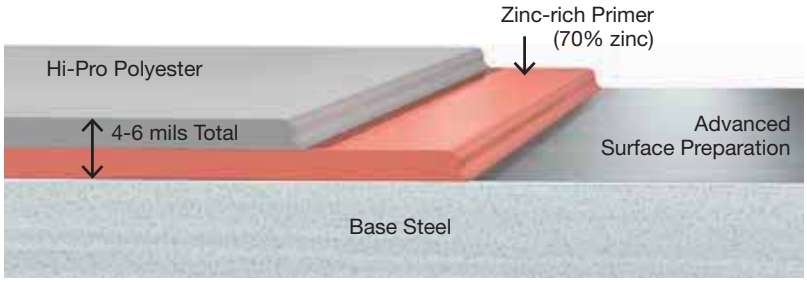
Laboratory exhaust is drawn into the Vektor fan (A).

The exhaust is discharged into the Vektor multistage induction nozzle and ambient dilution air is induced into the Vektor windband (B).

The laboratory exhaust plus induced dilution air is discharged at a high velocity into the atmosphere (C).

LabCoat™ for Laboratory Exhaust Applications

LabCoat™ corrosion-resistant coating is electrostatically applied uniformly in two steps after an advanced surface preparation involving a multistage chemical wash. This cleaner surface results in better coating adhesion and durability.



Step 1: A zinc-rich epoxy primer is applied and partially cured

Step 2: The finish coat of polyester resin (Hi-Pro Polyester) is applied and then fully cured at 400ºF (204ºC)

LabCoat™ is not affected by the UV component of sunlight (does not chalk) and has superior corrosion resistance to acid, alkali, solvents, and harsh environments (high humidity, coastal applications). The LabCoat™ system exceeds 4000 hour ASTM B117 Salt Spray Resistance—several times that of other corrosion-resistant coatings commonly offered.

Salt Spray ASTM B117					Durability		*Chemical Resistance Ratings					
Hours	1000	2000	3000	4000	Pencil Hardness ASTM D3363	Cross-Hatch Adhesion ASTM D3359-B	Bleach	Sulfuric Acid (10%)	HCl (10%)	MEK	Chlorine (0.1%)	Na0H (20%)
							0	0	0	1	0	1
Permatector™					3H	No Failure	0 - No effect 1 - Slight change in gloss or color 2 - Surface etching, severe staining, but film integrity remains 3 - Significant pitting, cratering, swelling, or erosion with obvious surface deterioration					
Hi-Pro Polyester					2H	No Failure						
Perma-Z					3H	No Failure						
LabCoat™					2H	No Failure						

*For additional chemical resistance of Hi-Pro Polyester, see Greenheck's Product Application Guide FA/110-04R5, Performance Coatings for Ventilation Products

office work

Company-wide — clean, quiet air.

1. *Modular Small Cabinet Fan*
2. *High-Temperature Roof Upblast Fan*
3. *Louvered Gravity Ventilator*
4. *Energy Recovery Ventilator*
5. *Centrifugal Inline Fan*
6. *Spun Aluminum Roof Exhaust*
7. *Propeller Roof Upblast Fan*
8. *Air-to-Air Energy Recovery*
9. *Equipment Screen*
10. *Inline Cabinet Fan with Damper*
11. *Ceiling Exhaust Fan*
12. *Combination Fire/Smoke Damper*

When do office workers notice their ventilation equipment? When they feel stuffy or uncomfortable. When fan noise disrupts their meeting. When they experience a “change of climate” from one room to the next. At Greenheck, we ensure that your contributions to comfort and productivity in the workplace will go unnoticed. We do it by manufacturing a complete line of ventilation products so you can design an integrated, balanced air system that delivers value — with quick, cost-saving installation; energy efficiency; quiet operation; and comfort. You’ll never achieve such performance by mixing and matching HVAC brands. Our extensive testing ensures that you can select more products with certifications from AMCA, UL, ETL, AHRI and CSA than from any other manufacturer. Engineering expertise and industry knowledge deliver value you can depend on every day.

Got an office job? Contact your Greenheck representative today.

Learn more at greenheck.com/4office

Fans & Ventilators | Centrifugal & Vane Axial Fans | Energy Recovery Ventilators
Packaged Ventilation Systems | Make-up Air Units | Kitchen Ventilation Systems
Dampers | Louvers | Lab Exhaust Systems | Coils

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Scan code to learn more about office system ventilation.

Kitchen Ventilation

Type I Grease Hoods

Type I hoods are designed for use above grease-producing equipment and are available in several styles and configurations.

Best Available Program

Hood shipment based on accessories and hood type shown*

Greenheck Type I Hoods are UL 710 Listed.

c UL us LISTED

NSF

Model Number Code

GH - E - W

Filter
- GH - Baffle Filter
- GX - Grease-X-Tractor™
- GG - Grease Grabber™
- GT - Energy Recovery

Make-Up Air Style
- E - Exhaust Only
- D - Exhaust Only, Double-Wall Front
- F - Face Supply

Configuration
- W - Wall Style Canopy
- V - Single-Island Style (V-Bank) Canopy

	Type I Hoods	Recommended Application
5 DAYS		Wall canopy exhaust hoods are used over cooking equipment that produce heat and grease-laden effluent. They are intended to be used when the cooking equipment is placed against a wall. Single-Wall Front or Optional Double-Wall Front with one-inch of insulation between the two front panels that provides additional strength and rigidity. • Supply air is introduced through ceiling diffusers or external supply plenums.
10 DAYS		Integral air supply air is introduced horizontally through the face via perforated panels in a manner that does not interfere with the cooking operation beneath the hood(s), ensuring uniform distribution of air and limiting the throw to within several feet of the hood(s).
		Island hoods are used over cooking equipment that produce heat and grease-laden effluent. Used over one row of cooking equipment placed where no walls exist and can be seen from all directions; has four finished (all stainless steel) sides available in both V-bank and single-bank filter configurations. • Supply air is introduced through ceiling diffusers or external supply plenums.

	Product/Accessories - Hood shipment based on accessories chosen*
5 DAYS	Switches – Light/Fan switches can be shipped loose or mounted on the hood face or utility cabinet.
	Lights – Multiple lighting options are available. Screw in for incandescent or CFL light fixtures are standard. Recessed incandescent, recessed fluorescent and LED lights are also available. LED lights are environmentally friendly and low maintenance. All fixtures are vapor proof and UL approved.
	Duct Collars, Factory Mounted – Collars are fully welded to the exhaust plenum and include a 1-inch flange. Ship Loose – Exhaust collars are included, but not mounted to the hood, allowing the contractor to cut the opening and improve aesthetics.
	Filler Panels – Stainless steel airspaces used to obtain required clearance to combustibles, to fill in open spaces.
	Enclosure Panels – When the top of the hood is mounted lower than the finished ceiling height, enclosure panels can be provided to match your hood and fill in the space between the hood and ceiling.
	Exhaust Air Balancing Baffle – Balances airflow between multiple duct or hood sections exhausted by a single main duct.
	ASP/HSP/BSP Supply Plenums – Supply air back to the space evenly.
	Kitchen Fan Control Center (KFCC) – Prewired control panel other than main power and connections to fan and lighting in the field. Allows you to manage power from one location.
	Digital Temperature Interlock – Temperature probe that detects heat from cooking and signals the fans to start. Controls available with an LED display.
	Trim Strips – Stainless steel strips used where hood sections meet to improve aesthetics.
	Zero Clearance Top – 1-inch insulated airspace provides clearance reduction to combustible/limited combustible surfaces.
	Double Shell – 1-inch insulated stainless panel that provides a more aesthetic finish, and increased rigidity on consultant grade hoods.
	Finished Back – Exposed stainless panel to finish the back of a wall canopy hood in instances where it is exposed.
10 DAYS	Backsplash Panels – Provides a cleanable stainless surface behind or on adjacent walls near the hood.
	End Skirts – Full or mini, provide improved capture and performance.
	VSP Supply Plenum – Supply air back to the space evenly.
	Utility/Fire Cabinets – Hood or remote mounted for housing controls or fire systems.
	Fire Suppression Systems – Amerex® or Ansul® factory pre-piped fire suppression systems.
	Zero Clearance Sides and Back – 1-inch insulated airspace provides clearance reduction to combustible/limited combustible surfaces.
	Vari-Flow Air Management System – Matches exhaust airflow to cooking load by means of heat sensors.

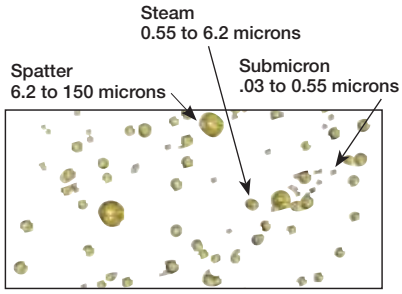
Grease Extraction – Filtration Options

Greenheck is the industry leader in grease filtration as verified by testing to ASTM F2519-2005 standards. This is crucial to the restaurant owner/operator because the grease generated by restaurant kitchens pose many problems; frequent duct cleaning, rooftop grease problems and compliance with tougher air emissions.

Total kitchen exhaust includes all grease particulate sizes as well as grease vapors. Grease is the by-product of commercial cooking processes that must be extracted from the effluent airstream via the kitchen ventilation system.

Filter	Application	Static Pressure (9 x 4 foot hood at 2050 cfm)	Grease Removal Efficiency at 8 microns	Grease Removal Efficiency 3-10 microns
 Grease Grabber™ Multistage Filtration System	Heavy to Extra Heavy Duty Grease	1.1 to 1.3 in. wg	100%	99%
 Energy Recovery Filter	Medium to Heavy Duty Grease	0.6 to 0.7 in. wg	88%	60%
 Grease-X-Tractor™ Centrifugal Filtration	Medium to Heavy Duty Grease	0.7 to 0.8 in. wg	69%	51%
 Baffle	Light Duty Grease	0.5 to 0.6 in. wg	28%	16%

Research and testing has determined that a significant concentration of grease particles can be found in the submicron and steam phases. Most currently applied grease extraction devices remove very large grease particulate that is 10 to 150 microns in size (spatter phase), but are not capable of removing fine particulates that are found in the submicron and steam phases.



Type II Heat and Condensate Hoods

Type II hoods are designed to capture heat and/or condensate from non-grease producing appliances such as ovens and dishwashers.

Type II Hoods	Recommended Application
 **Non-Filtered Heat and Fume Hoods** Model GO	Primarily used for ovens or general ventilation applications to capture heat and vapor, creating a more comfortable environment for the cooking staff.
Condensate Hoods The condensate hoods are available in three styles:	• Primarily used for dishwasher or condensate applications to capture heat and vapor, creating a more comfortable environment for the cooking staff. • These hoods are constructed with a gutter and drain.
 No Baffles Model GD1	Most economical and flexible in condensate applications.
 Single-Baffle Model GD2	Designed for moderate condensation applications. Great for vertical door dishwasher applications.
 Double-Baffle Model GD3	Designed for heavy condensate applications.

5 DAYS

Controls and Energy Management

Greenheck understands the importance of managing the various relationships between kitchen systems to ensure the best comfort, health and energy efficiency for your customers and employees. It is because we understand, that we provide engineered controls with many options to match your needs.

Variable Volume

Energy efficient kitchen ventilation systems are essential in reducing the operating costs associated with foodservice operations today.

A typical kitchen system will be designed for peak exhaust needs and operating at the exhaust airflow rate at all times. The reality is the cooking operation may only demand peak exhaust rates occasionally throughout the day.

Vari-Flow Air Management System is our most economical variable volume system while providing top energy savings. This system senses the heat output from the cooking operation to effectively modulate the airflow and offers exceptional turndown and quick response.

The keypad with digital display or the integrated touchscreen, allows for increased flexibility in managing your kitchen environment and maximize savings. Vari-Flow also integrates easily with any building management system.

Temperature Interlock

The temperature interlock is designed to automatically start the kitchen hood exhaust fans and keep them running while heat is being generated from the cooking appliances. The interlock will override the switch and start the fans once heat is detected in the event an operator fails to turn on the fans manually—ensuring safety and code compliance. These systems are available as a stand-alone control or as an integrated option in our other pre-engineered controls.

Digital Temperature Interlock includes a micro controller with LED display that can be remote mounted. This option provides easy access and accurate control when making seasonal adjustments to the temperature setting, eliminating the need to access the hood top.

Fan Control Center

The fan control center is a single source for managing all your kitchen ventilation products: fans, make-up air, hoods, fire system interlock, lighting and more.

Pre-wired to your specifications and only minimal field wiring is needed, making installation easy.

Model KFCC, Kitchen Fan Control Center, is designed to control the exhaust fans, supply fans and lights for the kitchen ventilation system. The KFCC has numerous options and can be interlocked with the fire suppression system.

External Supply Plenums

Make-up air can be introduced several ways, including ceiling diffusers, through-the-hood with an integrated supply plenum or an external supply plenum. External supply plenums positioned around the perimeter of exhaust only hoods are a great alternative to integral supply plenums. Unlike integral supply plenums, they do not sacrifice valuable hood containment area. They can be retrofitted to almost any hood and are generally less expensive than integral plenums.

Plenum Type	Recommended Supply Rate (cfm/ft)	Recommended Application
 ASP – Air Curtain Supply 10-inch to 24-inch	10-inch: Up to 180 24-inch: Up to 210	**Non-Tempered/Heat Only*** To minimize mixing with air in the space by distributing airflow at the hood, downward.
 HSP – Horizontal Supply	Up to 150	**Tempered Air (heated and cooling)*** Provides supply air to mix with room air.
 BSP – Back Supply	Up to 145	**Non-Tempered or Marginally Tempered Air** Air is kept near the hood to minimize mixing with air in the space.
 VSP – Variable Supply	Face: Up to 160 Curtain: Up to 80	**Non-Tempered or Marginally Tempered Air** Air is kept near the hood to minimize mixing with air in the space.

* Climate determines tempering conditions.

Fire Suppression

The first line of defense against fire in a commercial kitchen is the fire protection system installed in the exhaust hood. Greenheck has a variety of factory prepiped fire protection systems available from the two leading manufacturers, Amerex® and Ansul®.

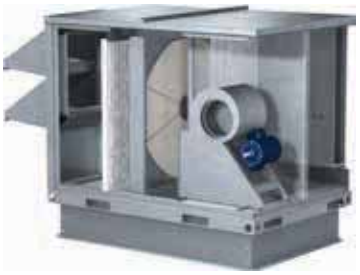
Manufacturer / Model		Fire Suppression Category Description
Amerex®	Ansul®	
Amerex® KP • Wet chemical • UL Listed	Ansul® R-102™ • Wet chemical • UL Listed	*Appliance specific* fire suppression is a wet chemical system to be used when the equipment placement is known and you expect few, if any, changes.
	Ansul® Piranha® • Dual-agent • UL Listed	*Dual-agent* provides a one-two punch by attacking it using the rapid flame knockdown and securing capabilities of PRX™ Liquid Fire Suppressant. Then, the superior cooling effects of water follow, cooling the cooking media below the reflash temperature within two minutes. The water also replenishes the foam blanket so that it can continue to act as a suppressant.
Amerex® Zone Defense • Wet chemical • UL Listed • Flexibility in appliance placement attributed to overlapping spray protection	Ansul® Overlapping • Wet chemical • UL Listed • Provides a zone of protection where appliances are protected by an overlapping spray	*Full flood/overlapping coverage* restaurant fire suppression systems were developed to solve the real world problem of how to protect a kitchen where appliances are moved around, rolled in and out for cleaning, or replaced with different appliances to accommodate changing menus. Overlapping coverage systems are also cost-effective where a lot of protection is needed.

c UL us LISTED

The Restaurant Fire Suppression System is constructed in compliance with the following:
- National Fire Protection Association (NFPA) Bulletin #96 and #17A
- UL Standard 300 Listed
- UL Standard 2092 Listed (Piranha®)
- International Association of Plumbing and Mechanical Officials (IAPMO) Interim Guide IGC 113-07
- ISO 9001-2000

Energy Recovery Ventilators

Energy recovery ventilators precondition outdoor air to near room conditions. Fresh outdoor air flows through one side of the unit, while stale exhaust air from the building flows through the other side. An energy recovery wheel rotates between the two airstreams, transferring temperature and moisture properties. In the summer, this transfer reduces the temperature and moisture level of the outdoor air. Likewise in the winter, this transfer increases the temperature and moisture level of the outdoor air. The overall effect is a significant reduction in the amount of energy used to condition the outdoor air.



Model ERV

The ERV is designed for indoor and outdoor mounted applications requiring 500 to 12,000 cfm of ventilation air. A key design consideration for these units is mounting location. Several duct configurations allow for floor-mounted or ceiling-hung installation. Access panels and optional hinged doors allow for easy access to the unit's wheel, filters, motors and controls.

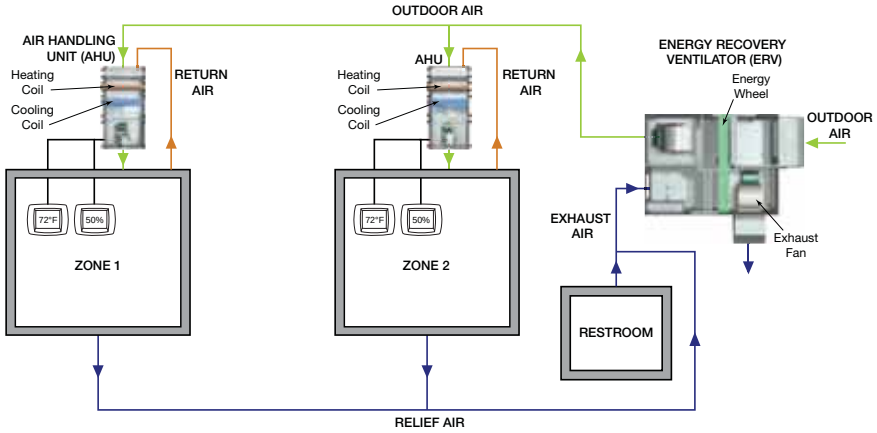
Model ERVe

The ERVe is designed for outdoor-mounted applications requiring 1,000 to 6,000 cfm of ventilation air. The configurability of this unit allows for easy incorporation on rooftops or outdoor pad-mounting scenarios. Hinged doors allow easy access to the unit's wheel, filters, motors and controls.

Application

Energy recovery technology is well suited for commercial and institutional applications such as classrooms, offices, meeting rooms, condominiums and assisted living facilities.

This diagram illustrate how energy recovery units can be used in conjunction with other HVAC equipment. Fresh, outdoor air enters the energy recovery unit and is pretreated before entering the heating and cooling equipment.



Benefits

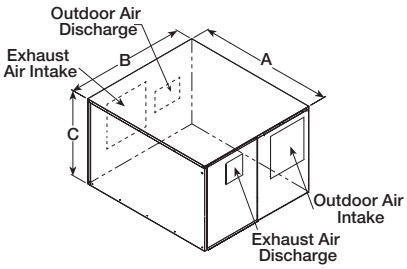
- Humidity control
- Reduced latent load on air conditioning equipment
- Improved indoor air quality of building
- Increased comfort of building occupants
- Reduced ventilation costs by as much as 75% producing year-round energy savings
- Eliminates problems associated with high indoor moisture levels

Energy recovery wheels certified by the AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program in accordance with AHRI Standard 1060. Actual performance in packaged equipment may vary. Certified Ratings are available in the Certified Product Directory.

Best Available Program

10 Days

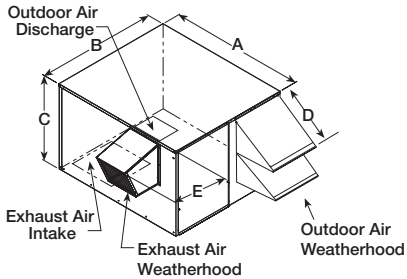
Standard Construction	ERV	ERVe
Galvanized steel construction (ERVe is double-wall)	■	■
Total enthalpy wheel certified to AHRI Standard 1060	■	■
Hinged doors		■
One-inch foil face insulation	■	■
Forward-curved fans	■	■
Single-point wiring	■	■
Motor starter	■	■
Non-fused disconnect	■	■
Options and Accessories		
Hinged doors	■	
Double-wall construction	■	
Roof curb	■	■
2-inch MERV 8 or MERV 13 outdoor air and exhaust air filters	■	■
Outdoor air and return dampers	■	■
Listed to UL 1995 (open motors only)	■	■
Enthalpy sensor (Economizer)	■	■
Temperature sensor (Economizer)	■	■
Timed exhaust, modulating wheel or electric preheat frost control	■	■
Duct flanges	■	■
Weatherhood	■	■
Dirty filter sensor	■	■
Permatector™ or Hi-Pro Polyester protective finish	■	■



Dimensions for ERV

Model Size	Exterior			Weight (lbs.)
	A	B	C	
10	46.1	33.7	28.1	340
20	62	51	34.4	720
45	67	67	44.7	1290
90	124	84	64	3230
120	146.3	96.7	77.5	3700

All dimensions are in inches.
Weight includes dampers and filters.



Dimensions for ERVe

Model Size	Exterior					Weight (lbs.)	Curb Outside Dimensions (in.)
	A	B	C	D	E		
20	65.9	52.6	45.1	18	20.7	950	61.10 x 40.35
35	68.1	62.6	53.2	22.1	17.8	1270	63.53 x 48.48
45	72.1	68.9	60.2	22	19.1	1500	67.35 x 55.48
55	83	75.4	70.2	21.7	23.5	1960	78.22 x 65.41

All dimensions are in inches.
Weight includes weatherhoods, dampers and filters.

Model MiniVent

The MiniVent is an energy recovery ventilator designed for indoor installations in commercial and institutional applications. The compact design provides an economical solution for individual spaces, such as school classrooms and small offices and may be floor mounted or ceiling hung. A removable panel enables easy access to filters and enthalpy wheel.

Quick Build Performance

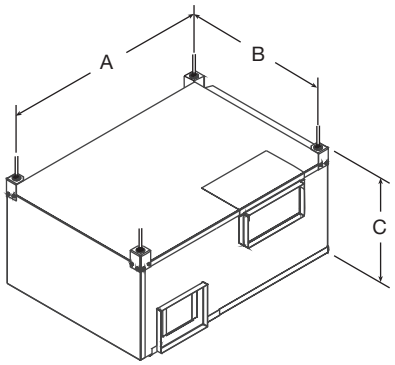
Capacities range from 150 to 850 cfm and 1 in. wg of external static pressure.

Standard Construction
Galvanized steel construction
Total enthalpy wheel certified to AHRI Standard 1060
Forward-curved blower
Gravity backdraft damper
Single-point wiring
1-inch pleated filters
Insulated
Listed to UL 1812
Options and Accessories
Intake and discharge accessories - wall, roof mounted
Speed control
Isolators - hanging or base, neoprene

Energy recovery wheels are certified by the AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program in accordance with AHRI Standard 1060. Actual performance in packaged equipment may vary. Certified Ratings are available in the Certified Product Directory.

Best Available Program

10 Days



Dimensions for MiniVent

Model Size	Exterior			Weight (lbs.)
	A	B	C	
450	40.2	28.6	19.9	150
750	45.8	35.2	23.8	250

All dimensions are in inches.

Model MiniCore

The MiniCore is a total enthalpy core energy recovery ventilator for commercial and institutional applications. The compact design makes it ideal for applications where both sensible and latent energy transfer is necessary.

The MiniCore is designed for indoor installations with the option to be floor mounted or ceiling hung. Motor options include a standard PSC motor or a Vari-Green® motor for additional energy savings.

Quick Build Performance

Capacities range from 300 to 1,000 cfm and 1 in. wg of external static pressure.

Standard Construction
Galvanized steel construction
Energy recovery core certified to AHRI Standard 1060
Forward-curved blower
Gravity backdraft damper
Single-point wiring
Removable side panels for filter access
2-inch pleated filters
Insulated
Listed to UL 1812
Options and Accessories
Vari-Green® motor
Direct drive fan
Timed exhaust frost control
Isolators - hanging or base, neoprene

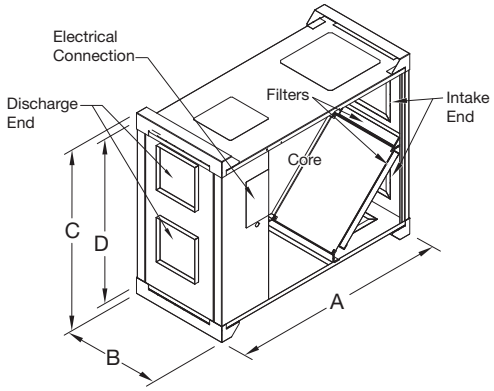
Intertek

Energy recovery cores are certified by the AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program in accordance with AHRI Standard 1060. Actual performance in packaged equipment may vary. Certified Ratings are available in the Certified Product Directory.

Best Available Program

In Stock

Select sizes and models with the Vari-Green® motor are available.



Dimensions for MiniCore

Model Size	Exterior				Weight (lbs.)
	A	B	C	D	
MiniCore-5	47.3	16.2	39.4	34.4	230
MiniCore-10	47.3	21.4	39.4	34.4	245

All dimensions are in inches.

Packaged Rooftop Units

Model RV and RVE

The RV and RVE (with energy recovery) are pre-engineered rooftop ventilators specifically designed to condition and deliver mixtures of outdoor and return air to a building. Pre-engineered features provide semi-custom flexibility while maintaining the quality, consistency, and value of a standardized product.

Application

The RV and RVE have been specifically designed to meet the challenges of introducing high percentages of outdoor air into a building. Features include minimizing energy consumption, control outdoor air volume, and maintain high levels of indoor air quality. This makes the RV and RVE ideal for ventilation applications in which the supply air volume consists of 20% or more outdoor air.

Benefits

- Factory-mounted variable frequency drive for supply air volume control
- Outdoor and return air dampers for mixed air control
- Onboard microprocessor for precise temperature and humidity control
- Single source responsibility for all conditioning of outdoor air

Quick Build Performance

Capacities range from 800 to 13,500 cfm and up to 3 in. wg of external static pressure.

Standard Construction	
Double-wall galvanized steel construction with 2-inch R13 foam insulation	
Hinged access doors	
Total enthalpy wheel certified to AHRI Standard 1060 (RVE only)	
2-inch MERV 8 and/or MERV 13 or 4-inch MERV 14 outdoor, supply and exhaust air filters	
Outdoor air and recirculated air dampers	
Microprocessor control	
Direct drive, backward-curved plenum fan	
Mounted and wired supply/exhaust fan variable frequency drive (VFD)	
Single-point wiring	
Non-fused disconnect	
Low sound condenser fans	
Options and Accessories	
Roof curb	Room sensing options/room thermostat
Aluminum mesh outdoor air weatherhood	Wheel frost controls
Microprocessor remote interface	Rotation sensor
BMS Communication	Airflow monitoring
Packaged direct expansion (PDX) or split DX coils, or chilled water	CO_2 sensor
	Duct pressure sensor
Indirect gas-fired furnace, hot water or electric heat	Building pressure sensor
	Wheel economizer control
Modulating hot gas reheat	Smoke detectors
Optional recirculation damper for 20-100% outside air	Dirty filter sensor
	Service receptacle
Optional high turndown furnace (up to 16:1, patent pending)	Permatector™ or Hi-Pro Polyester protective finish

Intertek

AHRI CERTIFIED
www.ahridirectory.org
Air-to-Air ERV
AHRI Standard 1060

Energy recovery wheels certified by the AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program in accordance with AHRI Standard 1060. Actual performance in packaged equipment may vary. Certified Ratings are available in the Certified Product Directory.

Best Available Program

25 Days

Make-Up Air Systems

Intertek
Direct Fired
Gas Heat

Model DG and DGX Direct Gas-Fired

The DG and DGX are designed to provide heated make-up air for industrial, commercial and kitchen applications. The direct gas-fired burner provides a 92% efficient heating system. Installation may be stand-alone or as a combination package with exhaust fan on a common curb.

Quick Build Performance

Capacities range from 800 to 48,000 cfm with up to 4 in. wg static pressure. Heating capacity up to 4,800,000 Btu/hr available.

Optional Evaporative Cooling

The evaporative cooling section includes a galvanized steel housing with a louvered intake, 2-inch aluminum mesh filters and a stainless steel evaporative cooling module. The CELdek® evaporative cooling media has a depth of 12 inches for 90% cooling effectiveness.

Optional Packaged Direct Expansion (PDX) - DGX only

The packaged DX cooling option is designed to cool the kitchen make-up air to a 70-75ºF supply air condition to improve space comfort and enhance employee productivity at an economical first cost. The PDX option includes integral low sound condenser fans, condenser and evaporator coils, thermal expansion valves, and compressors.

Model Housing Size	Best Available Program
DG-10 -20 -30	5 Days
DGX-12 -22 -32	10 Days
*DGX with PDX-12 -22 -32	15 Days

**Best Available based on housing size, capacity, coils, and unit accessories.*

Standard Construction	DG	DGX
Galvanized steel unit construction (G90)	■	■
Control center with starter and disconnect	■	■
Vibration isolation	■	■
Factory-wired and tested	■	■
Options and Accessories	**DG**	**DGX**
Forward-curved blower	■	■
Backward-curved blower		■
V-bank filters	■	■
Birdscreen weatherhood	■	■
Aluminum mesh filtered weatherhood	■	■
Louvered weatherhood	■	■
Thru-wall installation		■
100% outdoor air, constant volume	■	■
80/20 recirculation		■
Variable air volume (VFD or EC motor)	■	■
Room temperature control	■	■
Discharge temperature control with optional room override	■	■
Burner modulation through an external DDC signal		■
Network interface		■
Remote panel	■	■
Evaporative cooling	■	■
Packaged direct expansion (PDX)		■
Outdoor air damper, inlet	■	■
Discharge damper, outlet	■	■
Duct liner insulation	■	■
Double-wall construction	■	■
Exhaust fan starter	■	■
Dirty filter sensor	■	■
Freeze protection	■	■
Inlet air sensor, mild weather stat	■	■
Variable frequency drive (VFD)	■	■
Service receptacle		■
Auxiliary contacts	■	■
External gas pressure regulator	■	■
Roof curb	■	■
Duct adapter	■	■

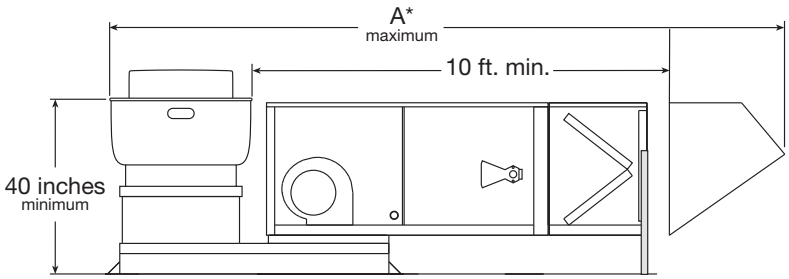
For comprehensive product information, including performance, access the product catalog found on www.greenheck.com or contact your local Greenheck representative.

GREENHECK
Building Value in Air.

Combination Packages

The Greenheck combination kitchen package simplifies installation and reduces field labor costs. The pre-engineered design ensures that the supply fan, exhaust fan, curb and combination extension components interface properly.

Equally important, Greenheck combination packages are specifically designed to comply with NFPA 96.



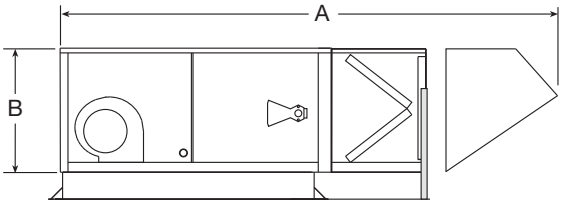
Combination Package - Arrangement DBC

Model	Housing Size	Arrangement DBC	
		A*	Width
DG	H10	185.7	35.5
	H20	204.8	50.0
	H30	227.0	58.8
DGX	H12	178.5	35.4
	H22	243.4	50.0
	H32	268.9	65.1

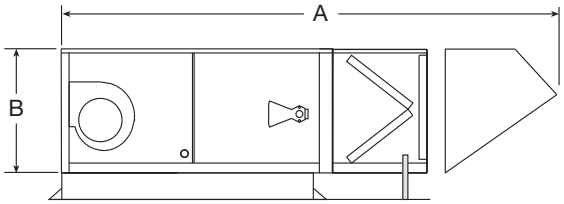
All dimensions are in inches and include a weatherhood and 2-inch filter section.
*Based on largest available CUBE exhaust fan.

Stand-Alone Arrangements

The DG and DGX are available for either downblast (Arrangement DB) or horizontal (Arrangement HZ) discharge. An upblast discharge (Arrangement UB), left discharge (Arrangement LT) and/or right discharge (Arrangement RL) are also available on the DGX.



Downblast Discharge - Arrangement DB



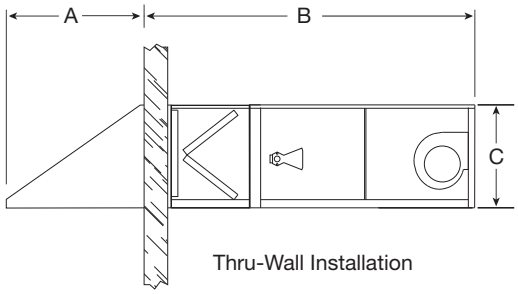
Horizontal Discharge - Arrangement HZ

Model	Housing Size	Arrangement DB/HZ		
		A	B	Width
DG	H10	132.3	33.8	28.0
	H20	148.8	33.8	37.0
	H30	162.9	42.5	48.0
DGX	H12	131.5	39.0	33.7
	H22	174.2	44.9	44.1
	H32	191.5	48.7	53.1

All dimensions are in inches and include a weatherhood and 2-inch filter section.

Thru-Wall Installation DGX

The DGX is available with a pre-engineered, thru-wall installation option, which is ideal when roof penetration is not desirable.



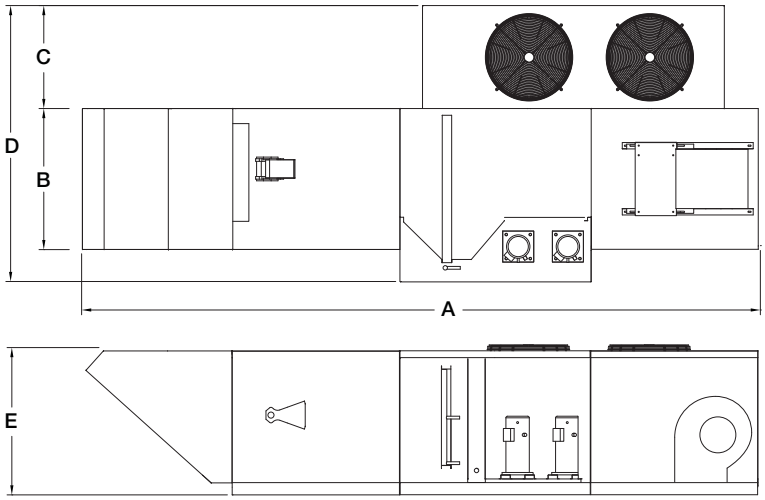
Thru-Wall Installation

Model	Housing Size	Thru-Wall Mount			
		A	B	C	Width
DGX	H12	28.0	122	39	33.7
	H22	41.8	145	44.9	44.1
	H32	63.1	160	48.7	53.1

All dimensions are in inches.

Thru-Wall Installation Option includes	
Weatherhood	A full downturn design with a generous intake area to minimize intake velocity and moisture entrainment.
Thru-Wall Sleeve	Sleeve provides attachment interface between weatherhood and burner section. Accommodates walls up to 15 inches in depth.
Filter Section	Aluminum mesh media filters outdoor air and strips fine mist from the air. Drain pan is pitched back towards the intake to allow mositure to weep out the front of the wall sleeve.

Dimensions for Packaged DX Cooling - DGX only



Model	Housing Size	Packaged DX Cooling				
		A	B	C	D	E
DGX	H12	156	33.8	25.5	70	39
	H22	212	45	32	87	45
	H32	237	52	35.5	99	49

All dimensions are in inches.

Intertek
Indirect Fired
Gas Heat

Model IG and IGX Indirect Gas-Fired

The IG and IGX features a 4-pass, 80% efficient indirect gas-fired furnace(s) which are ETL Listed.

Performance

Capacities is 15,000 cfm with up to 2 in. wg static pressure. Heating capacity ranges from 75,000 to 1,200,000 Btu/hr available.

Optional Evaporative Cooling

The evaporative cooling section includes a galvanized steel housing with a louvered intake, 2-inch aluminum mesh filters and a stainless steel evaporative cooling module. The CELdek® evaporative cooling media has a depth of 12 inches for 90% cooling effectiveness.

Optional Packaged Direct Expansion (PDX) - IGX only

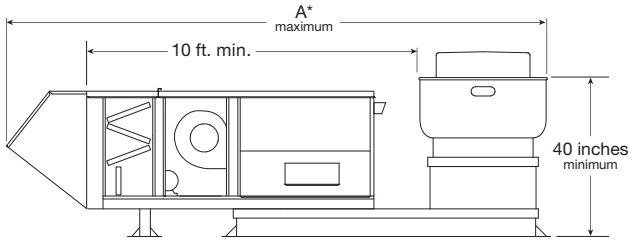
The packaged DX cooling option is designed to cool the kitchen make-up air to a 70-75ºF supply air condition to improve space comfort and enhance employee productivity at an economical first cost. The PDX option includes integral condenser fans, condenser and evaporator coils, thermal expansion valves, and compressors.

Model Housing Size	Best Available Program
IG-10 -20 -30	10 Days
IGX-12 -22 -32	
*IGX with PDX-12 -22 -32	15 Days

Best Available based on housing size, capacity, coils and unit accessories.

Standard Construction	IG	IGX
Galvanized steel unit construction (G90)	■	■
Power vented	■	■
Control center with starter and disconnect	■	■
Vibration isolation	■	■
Factory-wired and tested	■	■
Direct spark ignition system	■	■
Insulated double-wall furnace section construction	■	■
Options and Accessories	**IG**	**IGX**
Birdscreen weatherhood	■	■
Aluminum mesh filtered weatherhood		■
Louvered weatherhood	■	■
100% outdoor air	■	■
Recirculation	■	■
Variable air volume (VAV)		■
Staged furnace control	■	■
Modulating furnace 4:1 control	■	■
High turndown modulating furnace control (up to 16:1), patent pending		■
Remote panel	■	■
Aluminum or stainless steel heat exchanger	■	■
Network interface		■
Microprocessor control		■
Evaporative cooling	■	■
Packaged DX cooling		■
V-bank filter section	■	■
Outdoor air damper, inlet	■	■
Discharge air damper, outlet	■	■
Duct liner insulation	■	■
Double-wall construction	■	■
Exhaust fan starter	■	■
Dirty filter sensor	■	■
Freeze protection	■	■
Inlet air sensor, mild weather stat	■	■
Variable frequency drive (VFD)	■	■
Service receptacle	■	■
Auxiliary contacts	■	■
External gas pressure regulator	■	■
Roof curb	■	■
Duct adapter	■	■

Dimensions for IG

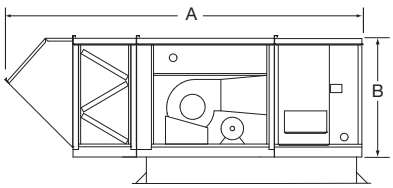


Combination Package - Arrangement DBC

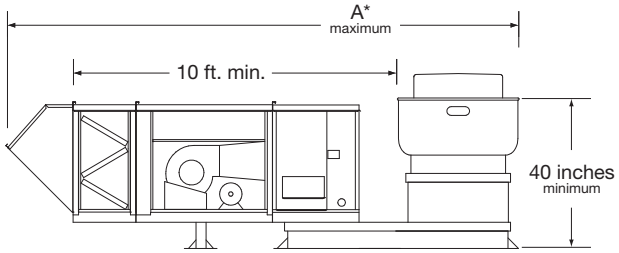
Model	Housing Size	Arrangement DBC	
		A*	Width
IG	H10	182	48
	H20	183	52.5
	H30	181	52.5

All dimensions are in inches and include a weatherhood and 2-inch filter section.
*Based on largest available CUBE exhaust fan.

Dimensions for IGX



Stand-Alone - Arrangement DB/HZ



Combination Package - Arrangement DBC

Model	Housing Size	Arrangement DB/HZ		
		A	B	Width
IGX	H12	127.1	39	44.6
	H22	155.1^	45	44.6+
	H32	172.3^	48.7	52.2

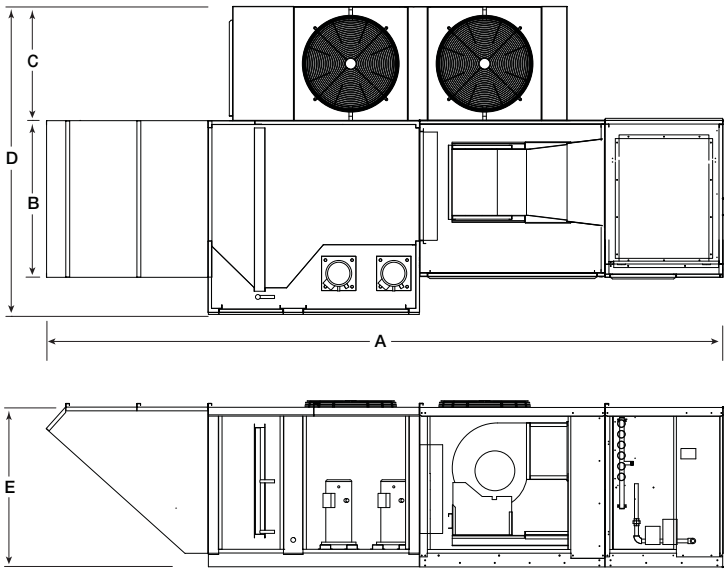
All dimensions are in inches and include weatherhood and 2-inch filter section.

Model	Housing Size	Arrangement DBC	
		A*	Width
IGX	H12	174	44.6
	H22	224.3^	44.6+
	H32	249.4^	52.2

All dimensions are in inches and include a weatherhood and 2-inch filter section.
*Based on largest available CUBE exhaust fan.

^ The A dimension is for units with only one furnace. Add 33.1 inches for each additional furnace.
+ Furnace section width is 44.6 inches for furnaces sizes 350 MBH or less. Width is 53.9 inches for furnaces greater than 350 MBH.

Dimensions for Packaged DX Cooling - IGX only



Model	Housing Size	Packaged DX Cooling				
		A	B	C	D	E
IGX	H12	151.8	44.1	29.1	73.2	39
	H22	192.2	44.1	32.1	86.3	45
	H32	216	52.2	35.3	100.1	48.7

All dimensions are in inches.

Model KSFD Direct Drive and KSFB Belt Drive - Untempered

Model KSFD and KSFB are designed to provide untempered make-up air for commercial and institutional kitchens. Installation may be stand-alone or on a combination curb with model CUBE exhaust fan.

Performance

A variety of blowers provide airflow capacities as high as 10,500 cfm with static pressures up to 2 in. wg.

Standard Arrangements

Model KSFD and KSFB have a compact design available with a horizontal discharge (arrangement HZ) or a downblast discharge (arrangement DB).

Installation may be as a stand-alone supply fan or a combination package with exhaust and supply fan on a common curb.

Combination Packages

The Greenheck combination package simplifies installation and reduces field labor costs. The pre-engineered design ensures that the supply fan, exhaust fan, curb and combination extension components interface properly.

Equally important, Greenheck combination packages are specifically designed to comply with NFPA 96.

Kitchen Fan Control Center (KFCC)

Prewired in compliance with the National Electrical Code, the KFCC simplifies field wiring, thereby reducing installation time and mistakes. The control center is a NEMA Type 1 panel for mounting indoors. It is designed to interlock with the fire suppression system.

Kitchen Supply Control Panel (KSCP)

The KSCP offers safety and reliability for remote operation. The standard NEMA Type 1 housing allows the panel to be mounted indoors. The panels can be provided with an optional kitchen hood light switch.

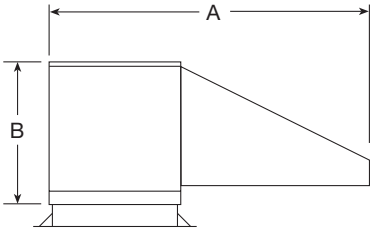
Options and Accessories	KSFD	KSFB
Kitchen fan control center (KFCC)	■	■
Kitchen supply control panel (KSCP)	■	■
Roof curb	■	■
Combo curb	■	■
Duct adapter	■	■
Damper	■	■
Speed controller	■	
Extended weatherhood	■	■
Horizontal or downblast discharge	■	■

Best Available Program

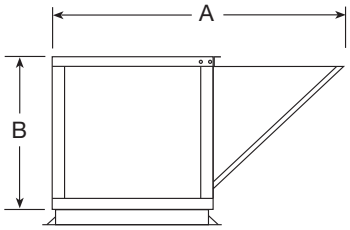
5 Days

Dimensions for KSFD, KSFB

Stand-Alone - Standard Weatherhood



Arrangement DB

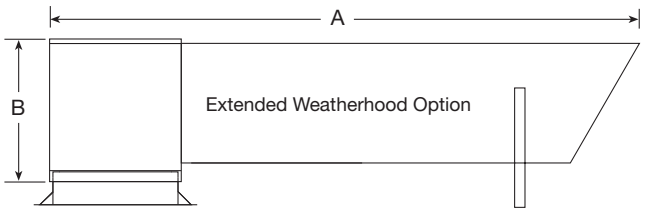


Arrangement HZ

Housing Size	Arrangement DB		
	A	B	Width
H05	40.8	14.5	19.8
H08	40.8	14.5	36.8
H15	80.3	22.3	31.8
H25	99.3	29.5	40.0

Housing Size	Arrangement HZ		
	A	B	Width
H05	31.5	18.5	19.8
H08	31.5	18.5	36.8
H15	71.0	25.3	31.8
H25	81.3	34.0	40.0

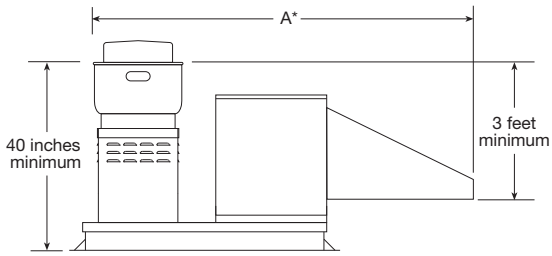
Stand-Alone - Extended Weatherhood



Arrangement DB

Housing Size	Arrangement DB		
	A	B	Width
H05	130.0	18.5	19.8
H08	124.8	18.5	36.8
H15	145.3	25.3	31.8
H25	152.5	34.0	40.0

3 ft. Vertical Separation Combination Package - Standard Weatherhood

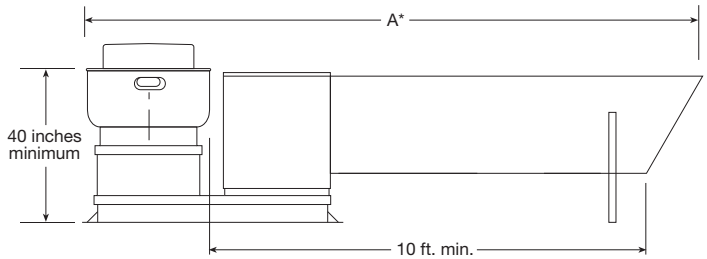


Arrangement DB3

Housing Size	Arrangement DB3	
	A*	Width*
H05	70.0	25.0
H08	82.3	36.8
H15	131.5	42.8
H25	159.8	50.0

*Maximum dimension. Based on largest available CUBE exhaust fan.

10 ft. Horizontal Separation Combination Package - Extended Weatherhood



Arrangement DBC

Housing Size	Arrangement DBC	
	A*	Width*
H05	159.3	25.0
H08	166.3	36.8
H15	196.5	42.8
H25	212.8	50.0

*Maximum dimensions. Based on largest available CUBE exhaust fan.

All dimensions are in inches. Consult your representative for dimensional data when the evaporative cooling option is selected.

Indoor Air Handlers

Best Available Program

10 Days

Best Available based on size and accessories.

Model VFCD Direct Drive and VFC Belt Drive

Vertical fan coils provide a low-cost method of air conditioning and/or heating for applications requiring a small footprint. These units utilize a steel double-wall cabinet construction with hinged motor access.

Quick Build Performance

Capacities range from 300 to 4,000 cfm and up to 1.5 in. wg (VFCD) or 3.3 in. wg (VFC).

Standard Construction	VFCD	VFC
Double-wall construction	■	■
Side access panel - hinged, removable	■	■
Internal isolation		■
Stainless steel drain pan	■	■
Easy slide-out motor and scroll	■	
Options and Accessories	**VFCD**	**VFC**
Internal spring isolation		■
Coils - hot water, chilled water, direct expansion and steam	■	■
Prefilters - vertical, aluminum mesh or 2- or 4-inch, pleated, (30 or 65% efficiencies)	■	■

Increased rigidity
Formed access panels

Excellent IAQ
Double-wall construction

Less noise, less vibration
Internal spring isolation (VFC)

Quality ensures longevity
Stainless steel drain pan

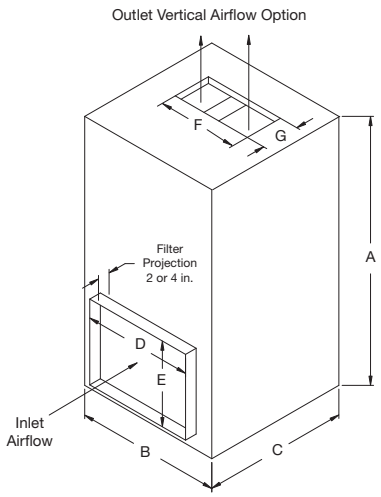
Easy slide-out motor and scroll (VFCD)

Dimensions for VFCD, VFC

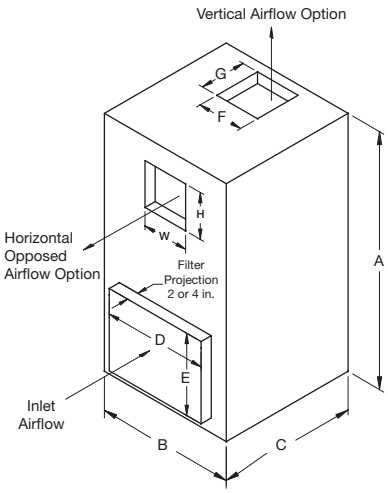
Model Size	A		B	C	Inlet		Outlet			
					D	E	F		G	
	VFCD	VFC					VFCD	VFC	VFCD	VFC
600	40	40	24	24	18	22	5.50	6.75	5.50	4.00
800	40	40	24	24	18	22	7.25	6.75	5.50	6.50
1300	44		24	28	18	22	18.00	8.50	5.63	8.00
1600	44		30	28	22	22	18.00	9.00	5.63	9.00
2000	52		34	28	29	23	26.00	10.00	5.63	9.00
2400	52		34	28	29	23	26.00	10.00	5.63	10.25
3000	52		50	32	45	22	32.88	12.75	10.38	12.00

All dimensions are in inches.

VFCD



VFC



our inventory...

For receiving, handling and distributing air.

1. *Propeller Roof Upblast Fan*
2. *Louver*
3. *Intake Damper*
4. *Spun Aluminum Roof Exhaust*
5. *Propeller Hooded Roof Fan*
6. *Recirculating Make-up Air Unit*
7. *Portable Mancooler Fan*
8. *High Temperature Roof Upblast Fan*
9. *Roof Curb*
10. *Dock Fan*
11. *100% Outdoor Air Make-up Air Unit*
12. *Propeller Sidewall Fan*
13. *Recirculating Make-up Air Unit*

Warehouse environments present a challenging set of air quality and control issues, from loading dock to dispatcher's office. High ceilings; large, open spaces; outside air incursion through open bays; engine exhaust; workers' safety and comfort. It's a handful — and it's something we're very good at!

For example: our GreenHeat™ direct gas-fired heating system for make-up air units uses 100% outdoor air, slightly pressurizing the building to offset cold-air infiltration. 100% efficient direct gas-fired burners lower operating costs compared to less efficient air-rotation heat exchangers. High-velocity, high-temperature operation mixes air to prevent stratified temperatures inside. Individual-unit zone control provides whole-building comfort. With reduced energy use, low initial equipment cost and labor savings due to easy installation, Greenheck value goes straight to the bottom line. To learn more about warehouse air, contact your Greenheck rep or visit our website.

Learn more at greenheck.com/4warehouse

Fans & Ventilators | Centrifugal & Vane Axial Fans | Energy Recovery Ventilators
Packaged Ventilation Systems | Make-up Air Units | Kitchen Ventilation Systems
Dampers | Louvers | Lab Exhaust Systems | Coils

715.359.6171
greenheck.com

Scan code to learn more about warehouse system ventilation.

LFC

MSFC

Model LFC and MSCF

Model LFC and MSCF provide a low-cost method of air conditioning and/or heating a building or specific space. These units come standard with a low-profile, double-wall constructed cabinet designed to fit in tight ceiling spaces. They utilize two types of forward-curved wheels providing a wide performance range and quiet operation.

Quick Build Performance

Capacities range from 360 to 5,300 cfm and up to 4.5 in. wg.

Best Available Program

10 Days

Best Available based on size and accessories.

Easy installation
Modular construction (MSCF only)

Quick, easy maintenance filter module

Quality ensures longevity
Stainless steel drain pan

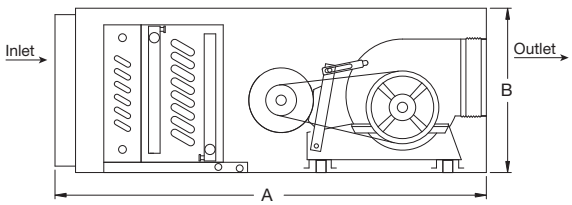
Less noise, less vibration
Internal spring isolation

Excellent IAQ
Double-wall construction

Increased rigidity
Formed access panels

Mix air evenly
Mixing box module

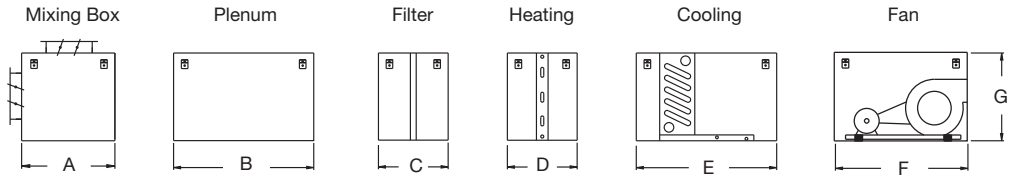
Standard Construction	
Low-profile - as short as 11 inches (LFC)	
Modular construction (MSCF)	
Double-wall construction	
Two access panels per module	
Internal isolation	
Stainless steel drain pan	
Module Selection	
Pre and/or post access plenums (MSCF only)	Prefilter (LFC, MSCF)
Heating coils - hot water and steam	Postfilters (MSCF only)
Cooling coils - chilled water and DX	Mixing box
Reheat coils	
Options & Accessories	
Wheel - backward-inclined (MSCF only)	
Internal spring isolation	
Coils - hot water, chilled water, direct expansion and steam	
Prefilter - vertical or sloped, 2- or 4-inch, pleated or aluminum, 30, 65 or 95% efficiencies	
Mixing box - with or without dampers, with or without filters, inlet configuration any two of top, end, bottom, right or left	



Dimensions for LFC

Model Size	A			B	Width	Inlet		Outlet	
	Without Filter	w/ 2 in. Filter	w/ 4 in. Filter			Height	Width	Height	Width
15	40	42	44	11.0	38	9.0	36	4.00	6.75
20	40	42	44	14.0	38	12.0	36	6.50	6.75
25	40	42	44	16.0	38	14.0	36	8.00	8.50
30	45	47	49	18.5	38	16.5	36	9.00	9.00
45	45	47	49	18.5	50	16.5	48	9.00	10.00
50	48	50	52	21.0	50	19.0	48	10.25	10.00
65	52	54	56	26.0	50	24.0	48	12.00	12.75
85	52	54	56	26.0	62	24.0	60	12.00	15.00

All dimensions are in inches.



Dimensions for MSCF

Model Size	A		B		C		D		E	F	G	Unit Width	Inlet		Outlet	
	Without Filter	With Filter	12 in.	24 in.	Vertical	Sloped	Hot Water 1 & 2 Row	Hot Water and Steam 4 Row					Height	Width	Height	Width
15	11.0	24.5	12.75	24.5	12.75	24.5	12.75	15.5	24.5	25	11.0	38	9.0	36	4.0	6.75
20	14.0	24.5	12.75	24.5	12.75	24.5	12.75	15.5	24.5	25	14.0	38	12.0	36	6.50	6.75
25	16.0	27.0	12.75	24.5	12.75	27.0	12.75	15.5	24.5	29	16.0	38	14.0	36	8.0	8.50
30	18.5	31.0	12.75	24.5	12.75	31.0	12.75	15.5	24.5	32	18.5	38	16.5	36	9.0	9.00
45	18.5	32.0	12.75	24.5	12.75	32.0	12.75	15.5	24.5	32	18.5	50	16.5	48	9.0	10.00
50	21.0	32.0	12.75	24.5	12.75	32.0	12.75	15.5	24.5	38	21.0	50	19.0	48	10.0	10.25
65	26.0	38.0	12.75	24.5	12.75	38.0	12.75	15.5	24.5	42	26.0	50	24.0	48	12.0	12.75
85	26.0	38.0	12.75	24.5	12.75	38.0	12.75	15.5	24.5	42	26.0	62	24.0	60	12.0	15.00

All dimensions are in inches. For complete dimensional information, see CAPS submittal drawings.

Custom Coils

AHRI CERTIFIED
www.ahridirectory.org
Air-to-Air ERV
AHRI Standard 1060
Energy Recovery COMPONENT is certified. Actual performance in packaged equipment may vary.

To guarantee your coil is going to perform as required, check for AHRI Certification.

Best Available Program

1 Day

Replacement and OEM Coils

Greenheck specializes in manufacturing competitively priced, quality-engineered replacement and OEM coils. Every coil we build is leak tested under water with 450 PSIG of dry nitrogen to guarantee 100% quality assurance.

	Tube Diameter (inches)				
	5/16	3/8	1/2	5/8	1
Wall Thickness (inches)					
.016	3	3	3		
.020		3	3	3	
.025				3	
.035				3	3
.049				3	3
Fin Material					
Aluminum	3	3	3	3	3
Copper			3	3	
Fins Per Inch (FPI)					
Min	8	10	6	6	4
Max	20	20	16	14	14
Fin Type					
Sine wave		3		3	
Lanced	3	3			
Corrugated			3		
Flat		3		3	
Connection Size (inches)					
Min	0.5	0.5	0.5	0.5	0.5
Max	4.0	4.0	4.0	4.0	4.0
Fin Height (inches)					
Min	5.0	5.0	5.0	4.5	6.0
Max	96	120	120	120	96
Increments of	1.0	1.0	1.25	1.5	3.0

Connection Types	
FPT - Female pipe thread	Sweat
MPT - Male pipe thread	Victaulic

Casing Types
Standard (1.5-inch flange)
Standard Booster (1-inch flange)
Slip and drive
Endplates only
Pitched
Inverted Supply End Flange
Inverted S.P. Flange

Casing Material	
Standard	Optional
16 gauge galvanized steel	14 gauge galvanized steel
	16 gauge stainless steel
	.09 in. thick copper

Refrigerant Types
R-22
R-134a
R-404A
R-407C
R-410A
R-502

	Fin Material	
	Aluminum	Copper
Tube Diameter (inches)		
5/16	3	
3/8	3	
1/2	3	3
5/8	3	3
1	3	
Fin Thickness (inches)		
.0045	3	
.006	3	3
.0075	3	
.008	3	
.010	3	
.016	3	
Fin Type		
Sine wave	3	5/8 in. only
Lanced	5/16 and 3/8 in. only	
Corrugated	1/2 in. only	1/2 in. only
Flat	3	

Fluid Flow Rates							
For water coils, connections sizes are based on GPM of water							
GPM	1-4	4-8	8-16	16-30	30-40	40-70	75-150
Connection	3/4	1	1 1/4	1 1/2	2	2 1/2	3

For comprehensive product information, including performance, access the product catalog found on www.greenheck.com or contact your local Greenheck representative.

	Coil Type (Style)							
	Custom						Booster	
	Chilled Water	Hot Water	Direct Expansion	Condenser	Standard Steam	Steam Distributing	Hot Water	Standard Steam
Tube Diameter (inches)								
5/16			3	3				
3/8	3	3	3	3				
1/2	3	3	3	3				
5/8	3	3	3	3	3	3	3	3
1					3	3		
Rows								
Min Rows	1	1	1	1	1	1	1	1
Max Rows	12	12	12	12	2*	2*	2	2
Fin Height (inches)								
Min	***Fin height is dependent on tube diameter (see Tube Diameter chart)***						6	6
Max							24	24
Increments of							3	3
Fin Length (inches)								
Min	***Minimum fin length is 1 inch***						6	6
Max	***Max fin length is 200 inches (144 inches for steam) with center supports every 50 inches***						48**	48**
Increments of	***No restriction on fin length increments***						1	1
Recommended Face Velocity (FPM)								
Min	400	500	400	600	500	500	500	500
Max	550	800	550	750	850	850	800	850
Recommended Fluid Velocity (FPS - for water coils)								
Min	1.5	1.5	NA	NA	NA	NA	1.5	NA
Max	4.0	4.0	NA	NA	NA	NA	4.0	NA
Recommended Pressure Drop (ft. of H_2O or psi)								
Min	1	1	NA	NA	1	1	1	1
Max	20	10	NA	NA	125***	125***	10	125***

**** Maximum Row of one for 1 inch tube diameter.***

***** Booster coil fin lengths are dependent on fin height.***

****** Higher steam pressures will require heavier tube wall thicknesses.***

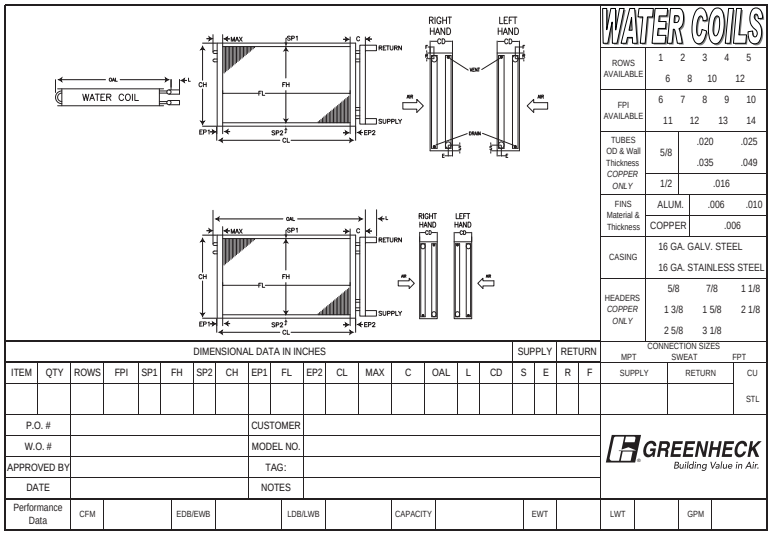
Coil Selection Program

Software

Visit www.greenheck.com/software to obtain Greenheck's coil selection software. Use of the self-explanatory software will guide the user in proper sizing and feature selection.

Coil Drawing Worksheets

Replacement Blank Coil Drawings—which are helpful for recording coil construction details when sizing and ordering replacement coils—are available from our website. The drawings are located on the Coils product web page under the Other Product Information section.



Dampers

Life Safety Products

Life safety dampers are intended to protect openings in walls and/or partitions to prevent the spread of fire and/or smoke. The four types are:

- Ceiling Radiation Dampers
- Fire Dampers
- Smoke Dampers
- Combination Fire Smoke Dampers

CRD-1

CRD-2

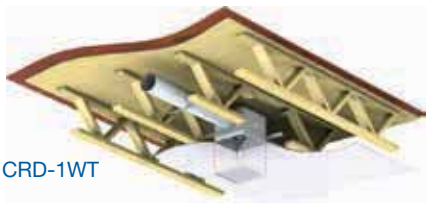
CRD-60

Ceiling Radiation Dampers

Ceiling radiation dampers are designed to protect penetrations through the ceiling membrane of fire resistive floor ceiling and/or roof ceiling assemblies. These products are tested and listed in accordance with UL Standard 555C.

CRD-1WJ

Qualified for installation in wood joist ceiling construction.



CRD-1WT

Qualified for installation in wood truss construction.

Model	In Stock Sizes	Best Available Program
CRD-1	6x6, 8x8, 9x9, 10x10, 12x12, 14x14, 22x10, 22x22	In Stock
CRD-2	6, 8, 10, 12	
CRD-1WT	Not applicable	1 Day
CRD-501	Not applicable	
CRD-1LP, CRD-1WJ, CRD-60	Not applicable	3 Days
CRD-60B, CRD-60X	Not applicable	5 Days

Model DFD-210, DFDAF-310, DFDAF-330 and SEDFD-210 are AMCA Licensed for Air Performance

Fire Dampers

Fire dampers are required by all building codes to maintain the required fire resistance ratings of walls, partitions and floors when they are penetrated by air ducts and transfer openings. These products are tested and classified in accordance with UL Standard 555. Fire dampers close automatically upon detection of heat, blocking the opening and preventing the spread of fire into the adjoining compartment or spaces.

Model	Best Available Program
DFD-110, 150, DFD-150x10, DFD-150x12, DFD-150x14, DFD-150x16, FD-110, 150, FD-150x10, FD-150x12, FD-150x14, FD-150x16; DFD-310, 350; FD-310, 350; FDR-510; DFDR-510; DFD-210, DFDAF-310, 330; ODFD-150, OFD-150	1 Day
SEDFD-210	3 Days
FD-100, SSDFD-150, SSFD-150; FD-300, SSDFD-350, SSFD-350; SEDFDR-510; SSDFDR-510; SSFDR-510	5 Days

SE in model name denotes 316 stainless steel
SS in model name denotes 304 stainless steel

Model SMD-201, 201M, 202, 203, 301, 302, 301M, 302M; SESMD-201 and SSSMD-201 are AMCA Licensed for Air Performance

Smoke Dampers

Smoke dampers have two applications:

1. They may be applied in a passive smoke control system where they simply close and prevent the circulation of air and smoke through a duct or a ventilation opening in a smoke barrier.
2. They may be applied as part of an engineered smoke control system designed to control the spread of smoke using walls and floors as barriers and using the building's HVAC system and/or dedicated fans to create pressure differences.

These products are tested and classified in accordance with UL Standard 555S.

Model	Best Available Program
SMD-201, 201M, 202, 203; SMD-301, 301M, 301V, 302, 302M; SMD-401, 401M; SMDR-501, 502	1 Day
SESMD-201; SSSMD-201	3 Days
SESMDR-501; SSSMDR-501; HSD-401	5 Days
SMD-401EF	10 Days

SE in model name denotes 316 stainless steel
SS in model name denotes 304 stainless steel

Model CFSD-211, 212; FSD-211, 211M, 212, 213, 311, 311M, 312, 312M, 331; SSFSD-211; SEFSD-211; and OFSD-211, 212, 311, 312 are AMCA Licensed for Air Performance

Combination Fire Smoke Dampers

Combination fire smoke dampers perform the function of both a fire damper and a smoke damper. Building layouts and designs often combine fire and smoke rated partitions and barriers requiring the installation of both a fire damper and smoke damper at the same location. These products are tested and classified in accordance with both UL555 and UL555S.

Model	Best Available Program
FSD-211, 211M, 212, 213, 311, 311M, 311V, 312, 312M, 331; CFSD-211, 212; GFSD-211, 212; OFSD-211, 212, 311, 312; FSDR-511, 512	1 Day
SEFSD-211; SSFSD-211	3 Days
SEFSDR-511; SSFSDR-511, 512	5 Days

SE in model name denotes 316 stainless steel
SS in model name denotes 304 stainless steel

Access Doors

Access doors are designed for use in low to medium pressure duct systems. They provide a durable, practical, and inexpensive means of gaining access to damper components inside the ductwork.

Model	Sizes	Best Available Program
CAD, HAD	6x6, 8x8, 10x10, 12x12, 14x14, 16x16, 18x18, 20x20, 24x24	In Stock
RAD Insulated	6 thru 24 inch duct diameter (in inch increments)	
RAD Uninsulated	6 thru 24 inch duct diameter (in inch increments)	

Control Dampers

Control dampers are designed to control pressure, temperature or flow in a HVAC system. They can be used in intake, exhaust, or mixed air applications. These dampers require operation by either manual, electric or pneumatic actuators. There are seven types of control dampers:

- Air Measuring Dampers
- Insulated Thermally Broken Control Dampers
- Heavy Duty/Industrial Control Dampers
- Volume Control Dampers
- Face and Bypass Dampers
- Manual Balancing Dampers
- Remote Balancing Dampers

Model AMD-23 and AMD-33 are AMCA Licensed for Air Leakage and Air Performance

Air Measuring Dampers

Air measuring products help meet building minimum outdoor air requirements of ASHRAE Standard 62 or California Title 24 by providing accurate monitoring and control of outside air. The AMS is an accurate airflow measuring station. The AMD series combines the function of an accurate airflow measuring station and a low leakage control damper into one compact assembly.

Model	Best Available Program
AMD-23, 33, 42, 42V; AMS	10 Days

Model ICD-44 and ICD-45 are AMCA Licensed for Air Performance, Efficiency and Air Leakage

Insulated Thermally Broken Control Dampers

Insulated thermally broken control dampers were developed for applications where it is necessary to minimize the transfer of heat or cold penetration and reduce condensation. Model ICD-44 features a thermally broken, insulated blade. ICD-45 features a thermally broken, insulated frame and blade. The ICD series meets the IECC (International Energy Conservation Code) requirements with a leakage rating of 3 cfm/ft^2 at 1 in. wg or less.

Model	Best Available Program
ICD-44, 45	5 Days

Heavy Duty/Industrial Control Dampers

Heavy duty/Industrial control dampers have a heavy duty flanged frame designed to regulate airflow and provide shutoff in HVAC or industrial process control systems. They are available in 3V, airflow or round blade styles. The HCD series is designed for applications with pressure up to 45 in. wg and velocities up to 6000 fpm. HCDR series is designed for applications with pressure up to 20 in. wg and velocities up to 6500 fpm.

Model	Best Available Program*
HCD-120, 130, 135, 140, 220, 230, 240	5 Days
HCDR-050,150, 250, 350, 351	10 Days

*Mill finish

Volume Control Dampers

Volume control dampers regulate the flow of air and can also be used as a positive shutoff or automatic control. They are available in 3V, airfoil, round and vertical blade styles.

Model	Best Available Program
VCD-20, 23, 33, 34, 40, 42, 43; VCD-20V, 23V, 33V, 34V, 42V, 43V; VCDR-50, 53	1 Day
SEVCD-23, 33	3 Days
VCDRM-50, 53	10 Days

SE in model name denotes 316 stainless steel

Model VCD-20, 40 are AMCA Licensed for Air Performance

Model VCD-23, 33, 34, 43 and SEVCD-23, 33 are AMCA Licensed for Air Leakage and Air Performance

Face and Bypass Dampers

Face and bypass dampers are two connected dampers. This feature allows one damper to remain open while the other damper is closed. The FBH series are a horizontal style with dampers alongside of each other and the FBV series are a vertical style with dampers stacked.

Model	Best Available Program
FBH-23, 33, 43; FBV-23, 33, 43	3 Days

Manual Balancing Dampers

Manual balancing dampers are designed to regulate flow of air in an HVAC system. They are used to accomplish system balancing. Each damper is equipped with a locking quadrant which fixes the damper blades in place after adjustment. These dampers are not intended to be used in applications as a positive shut off or for automatic control.

Model	Best Available Program
MBD-10, 10M, 15; MBDR-50	1 Day

Remote Balancing Dampers

Remote balancing dampers offer the same function as manual balancing dampers plus the added benefit to control the damper remotely at the diffuser or wall plate. These dampers are ideal for applications where it is difficult to manually adjust the dampers and balance airflow. The “EZ Balance” remote control operates the damper motor by connecting to the wall, ceiling, or diffuser mounted RJ11 connector.

Model	Best Available Program
RBD-10, RBDR-50	1 Day

Backdraft and Relief Dampers

Backdraft dampers are used in ventilation systems to allow airflow in one direction and prevent airflow in the opposite direction. A relief damper has an elevated and adjustable start-open pressure. There are four types:

- Backdraft
- Heavy Duty/Industrial Backdraft
- Barometric Relief
- Pressure Relief

Model BD-100, 320, 330 and ES-30, 31, 32 are AMCA Licensed for Air Leakage and Air Performance

Backdraft Dampers

Backdraft dampers are isolation dampers which allow airflow in one direction only. To help open the damper blades, backdraft dampers use springs, adjustable counterbalance weights, or a motorpack.

Model	In Stock Sizes	Best Available Program
BD-90	8x8	In Stock
BD-100	8x8, 10x10, 12x12, 16x16, 18x18	
BD-320	10x10, 12x12, 14x14, 18x18	
BD-330	9x9, 12x12, 14x14, 16x16, 18x18	
WD-100	8x8, 10x10, 12x12, 16x16, 18x18, 24x24, 30x30	
WD-320	10x10, 12x12, 14x14, 18x18, 22x22, 26x26, 32x32, 38x38	
WD-323	8x8, 10x10, 12x12, 15x15	
WD-330	9x9, 12x12, 14x14, 16x16, 18x18, 20x20, 23x23, 24x24	
WD-340	8x11, 9x12, 12x17	
WD-410	8x8, 10x10, 12x12, 16x16, 18x18, 24x24, 30x30	
ES-10, 11, 12, 30, 31, 32, 40, 41, 42; EM-10, 11, 12, 30, 31, 32, 40, 41, 42	Not applicable	1 Day
WD-110, 120, 200, 210, 220, 300, 400, 420, 430	Not applicable	3 Days
WDR-53	Not applicable	5 Days
SSWDR-53	Not applicable	10 Days

Heavy Duty/Industrial Backdraft Dampers

Heavy duty/Industrial backdraft dampers have a flanged frame and are designed to prevent backflow at static pressures up to 20 in. wg. Counterbalance weights are mounted externally for easy adjustment and balancing in the field.

Model	Best Available Program*
HB-110, 120, 230, 240	5 Days
HB-330, HBR-050	10 Days

*Mill finish

Barometric Relief Dampers

Barometric relief dampers are backdraft dampers with an adjustable start-open pressure. They are used for gravity ventilation and low velocity systems. Counterbalance weights provide the ability to fine tune start-to-open and full-open operation.

Model	Best Available Program
BR Series	5 Days
SEBR Series	5 Days

SE in model name denotes 316 stainless steel

Pressure Relief Dampers

Pressure relief dampers are backdraft dampers with adjustable start-open pressure, capable of maintaining a relatively constant pressure at various airflows, which closes upon a decrease in differential pressure. Pressure relief dampers do not immediately open fully upon reaching their start-open pressure. HPR series dampers are flange mounted with counterbalance weights mounted externally for easy adjustment and balancing in the field.

Model	Best Available Program*
HPR-120, 230, 330	5 Days

*Mill finish

Blast Dampers

Blast dampers are designed to remain open under normal operating condiditons to allow normal airflow. In the event of an explosion, the HBS series are designed to react to the shockwave and close, helping to contain the explosion. These models are double flanged channel frame style dampers with fabricated airfoil blades. The HBS-330 will close in the same direction as normal flow. The HBS-331 will close in the opposite direction as normal flow.

Model	Best Available Program*
HBS-330, 331	10 Days

*Mill finish

Model IMO-311 and SSIMO-311 are AMCA Licensed for Air Performance

Marine Dampers

Marine dampers are United States Coast Guard Class A-60 division and ABS approved. The marine dampers were tested at Underwriters Laboratories (UL) in accordance with International Maritime Organization's (IMO) Fire Test Procedure code. Fire and combination fire/smoke dampers can be used in marine and offshore ventilation systems.

Model	Best Available Program
IMO-310, 311; SSIMO-310, 311	3 Days

SS in model name denotes 304 stainless steel

Duct Heaters

IDHB

IDHC

Best Available Program

3 Days

Model IDHB and IDHC

Greenheck has a complete line of configurable electric duct heaters that are perfectly suited to your HVAC application. Our CAPS configuration tool helps you save time with its industry-leading selection speed and information packed submittals. With quick lead times and a proven history of on time shipping, we can ensure that your heater will be available when you need it. Experience the difference by choosing Greenheck duct heaters for your project.

Application

Duct heaters are used in forced air applications to provide dedicated space heat or to supplement existing heating systems. Typical applications are:

- Space heating
- Primary heating
- Secondary and/or auxiliary heating
- Reheat
- Multi-zone and VAV systems
- Replacement

Standard Construction	
Factory assembled. Wired for 50/60 Hertz.	
Fan interlock	
Automatic reset thermal safety switch for primary over temperature protection	
Manual reset thermal safety switch for secondary over temperature protection	
Power and control terminal boards	
Control panel constructed of heavy gauge corrosion-resistant steel	
Left hand offset control box (standard)	
Zero clearance rating	
UL 1996 Listed	
Options Available	
Airflow switch	De-rated coils
Control transformer	Recess for internally insulated ducts
Disconnect switch with door interlock	Flush mount control cabinet for tight ceiling/floor installations
Dust tight box with gasketed door	
80/20 element wire	Stainless steel hardware
Vapor barrier	Right offset control cabinet

	IDHB	IDHC
Voltages/Stages	120/1 - 480/3	120/1 - 480/3
Capacity	0.5 - 39.9 kW	0.5 - 500 kW
Minimum Size	8 x 8	8 x 8
Maximum Size	36 x 36	120 x 144
Heater Control	• Stage • Pnuematic	• Stage • SCR Control • Vernier SCR (larger kW) • Pnueumatic
Thermostat	Room	Room Duct

For comprehensive product information, including performance, access the product catalog found on www.greenheck.com or contact your local Greenheck representative.

Louvers

Model	Best Available Program
Recessed Mullion Stationary Louvers	3 Days
Painted Finishes	10 Days
All Other Stationary Louvers	1 Day
Painted Finishes	5 Days

Stationary Louvers

Stationary extruded aluminum louvers are used in applications that require intake and exhaust ventilation with moderate protection from rain and weather infiltration. Non-drainable and drainable models available.

Product Type	Model	Description
 Drainable Blades	EDD-401, 601 ESD-202, 403, 435, 603, 635	Designed with a drainable head and drainable blades to protect air intake and exhaust openings in a building's exterior walls by minimizing water penetration. Drain gutters are located on every blade to capture water which is dispersed to the jambs and drained out of the sill. The Dual Drainable (EDD) louvers have an additional rain gutter on each blade to provide additional water and weather protection.
 Drainable Head	EDJ-202, 401, 430, 601 EDK-402, 430, 602 ESID-430	Design includes a drainable head member with either J or K style blades and optional 30° blades to maximize free area. The ESID-430 design allows intake and discharge ductwork to be connected to the back of the louver and prevents the short cycling of air. This unit can be either a combination intake/ discharge louver or discharge only louver.
 Non-Drainable Blades	ESJ-202, 401, 602 ESK-402, 602	Designs incorporate traditional non-drainable J or K style blades with sloped sill. The K style blade has an additional offset “rain hook” in each blade to provide extra protection against water penetration. High free areas provide minimum resistance to airflow. Design incorporates hidden mullions when multi-wide sections are needed.
 Recessed Mullion	ESJ-401RM, 602RM ESK-402RM, 602RM EHM-601	The traditional non-drainable J and K style blades with recessed mullion. Design offers better blade alignment for a continuous blade appearance. Provides more structural integrity between multi-wide sections.

Model	Best Available Program
All Thinline Louvers	1 Day
Painted Finishes	10 Days

Thinline Louvers

Thinline extruded aluminum louvers are commonly used for interior or exterior applications where high free area and low airflow resistance is required. The narrow depth makes this product ideal for installation into curtainwalls, windows and doors.

Product Type		Model	Description
	Framed Models	ESJ-155 ESU-153, 154	The narrow depth makes this product ideal for installation into curtainwalls, windows, doors or as air conditioning grilles. Flat or J style blades available depending on model selected.
	Frameless Models	ESU-153S, 154S	Frameless models with extruded aluminum vertical supports are ideal for use as a Packaged Terminal Air Conditioning (PTAC) grille.

Model	Best Available Program
All Sightproof Louvers	1 Day
Painted Finishes	5 Days

Sightproof Louvers

Sightproof extruded aluminum louvers designed to prevent visual see-through and security. Can be applied as air intake or discharge louvers or can be applied as louvered equipment screens. Chevron drainable and non-drainable blades available, as well as a vertical blade configuration.

Product Type		Model	Description
	Horizontal Blades	SES-202, 401 SEH-202, 401 SED-202, 401, 501	SES models incorporate a horizontal chevron blade preventing visual see-through. SEH models incorporate a drainable head member for increased protection against water penetration. SED models offer both drainable head member and drainable blades for maximum protection against water penetration.
	Vertical Blades	SEV-401, 501	Incorporates chevron style blades in a vertical blade configuration preventing visual see-through.

Model	Best Available Program
EAC, EACA, ECD, EACN, GCE, GCI	1 Day
Painted Finishes	5 Days
EACC	10 Days
Painted EACC	15 Days

Combination Louver/Damper Louvers

Extruded aluminum combination louver/dampers incorporate operable and stationary blades into one common frame member. Design maintains a stationary appearance when adjustable blades are closed. A tight seal is created to prevent the passage of air.

Product Type	Model	Description
 Drainable Blades	EAC-401, 601 EACC-401, 601 EACA-601 ECD-401, 601	All models include drainable stationary blades and a drainable head member. Drainable adjustable blades have either concealed blade linkage or exposed on-blade linkage. Design of EACA-601 incorporates airfoil adjustable blades for less airflow resistance. EACC models incorporate a concealed actuator.
 Non-Drainable Blades	EACN-601	Non-drainable stationary blades are combined with non-drainable center pivot adjustable blades. The design does include a drainable head member and concealed blade linkage.
 Gravity Louvers	GCE-202, 402 GCI-202, 402	Combination weather louver and gravity backdraft dampers designed to protect air exhaust openings in building exterior walls. Design incorporates a drainable head member, J style stationary louver blades, pressure/gravity operated damper blades. *Recommended application is in close proximity to an exhaust or intake air fan.*

Model	Best Available Program
EAD, EAH	1 Day
Painted Finishes	5 Days
EADC	10 Days
Painted EADC	15 Days

Adjustable Louvers

Extruded aluminum operable blade louvers are designed to be open or closed to protect air intake and exhaust openings in exterior building walls. Louver blades are center pivoted and can be operated manually or by any commonly specified damper actuator.

Product Type	Model	Description
 Drainable Blades	EAD-401, 601, 635 EADC-401, 501	Model EAD offer concealed blade linkage. Model EAD-635 offers 35° blade angle. EADC models incorporate a concealed actuator.
 Non-Drainable Blades	EAH-401, 690	EAH models offer concealed blade linkage. Model EAH-690 provides 70% free area when blades are in full 90° open position.

Model	Best Available Program
EHV-901	5 Day
Painted Finishes	10 Days
All Other Wind Driven Rain Louvers	1 Day
Painted Finishes	5 Days

Wind-Driven Rain Louvers

Wind-driven rain louvers are Greenheck's most effective louvers in minimizing water penetration through wall openings. Designed to protect air intake and exhaust openings in building exterior walls that are sensitive to the penetration of wind-driven rain.

Product Type	Model	Description
 Horizontal Blades	EHH-201, 401, 501, 601, 701	Horizontal blades offer the traditional louver look and excellent protection against wind-driven rain.
 Vertical Blades	EVH-201, 301, 401, 501, 602, 801 EHV-901	Vertical blades offer the best protection against wind-driven rain although the vertical blade look is not typical.

Model	Best Available Program
ESD-635DE 12x12, 18x18, 24x24, 30x30, 36x36, 48x48 Mill Finish Only (Miami Warehouse)	In Stock
ESD-435X, ESD-635X, EHH-501X, EVH-602X	3 Days
Painted Finishes, *models above*	10 Days
EACA-601D, ESD-635D, ESD-635DE, EHH-601D, EHH-601DE, EHV-901D, ESS-502D, EVH-501D, EVH-660D	5 Days
Painted Finishes, *models above*	10 Days
AFJ-601D, AFJ-601X, ESD-635PD, EHH-601PD	10 Days
Painted Finishes, *models above*	15 Days

Florida Product Approved Louvers Miami-Dade Qualified Louvers and Penthouses

These louvers have been designed to meet the stringent criteria established by the Florida Building Code. Whether your application calls for louvers to meet a high wind-load, impact resistance, or be resistant to the penetration of wind-driven rain, Greenheck has the solution.

Product Type	Model	Description
 Florida Product Approved	AFJ-601X, ESD-435X, ESD-635X, EHH-501X, EVH-602X	Approved for use in Florida's High Velocity Hurricane Zone if Miami-Dade Notice of Acceptance is not required. All mechanically fastened models comply with TAS-202 Uniform Static Pressure Test (ASTM E330). Models also comply with TAS-201 Large Missile Impact Test (ASTM E1996), TAS-203 Cyclic Wind Pressure Load Test with optional welded construction.
 Miami-Dade Qualified	Louvers: AFJ-601D, EACA-601D, ESD-635D, ESD-635DE, EHH-601D, EHH-601DE, EHV-901D, ESS-502D, EVH-501D, EVH-660D Miami-Dade Penthouses: EHH-601PD, ESD-635PD	For use within Florida's High Velocity Hurricane Zone when a Miami-Dade Notice of Acceptance is required. All models comply with Miami-Dade structural test protocols TAS-201 Large Missle Impact Test (ASTM E1996), TAS-202 Uniform Static Pressure Test (ASTM E330) and TAS-203 Cyclic Wind Pressure Test.

Model	Best Available Program
All Acoustical Louvers	10 Days
Painted Finishes	15 Days

Acoustical Louvers

Acoustically insulated louver blades provide sound absorption for escaping noise. Available in either formed aluminum or steel material and in a variety of blade styles such as airfoil, sightproof or J blade.

Product Type		Model	Description
	Airfoil Blades	AFA-801	Acoustical airfoil blades offer the highest free area and lowest airflow resistance.
	J Blades	AFJ-120, 601, 801	Acoustical J style blade series offers the best balance of economics, airflow resistance and sound absorption.
	Sightproof Blades	AFS-120	Acoustical sightproof blades prevent visual see-through while providing sound absorption.

Model	Best Available Program
All Fabricated Louvers	3 Days
Painted Finishes	10 Days

Fabricated Louvers

Fabricated from 20, 18 or 16 gauge galvanized steel and available in stainless steel material. Units are low cost compared to extruded aluminum models. Stationary and adjustable blades are available, as well as drainable and non-drainable blades.

Product Type		Model	Description
	Adjustable Blades	FAD-402, 602, 635 FAJ-402, 602	Operable drainable (FAD) or J (FAJ) blades can be closed for tight air shut off. Provide similar features as the EAD extruded aluminum models. Can be operated manually or by any commonly specified damper actuator.
	Stationary Blades	FDS-402, 602 FSJ-402, 602	FDS models incorporate stationary drainable blades for excellent resistance to water penetration and FSJ models include traditional J style blades.

Best Available Program
Shipment time is determined by size and finish type chosen

Brick Vents

A permanent means of ventilation for crawl spaces, hung ceilings, incinerator rooms, chimney flues, foundations, pipe spaces and corridors. Many standard sizes and finishes available.

Product Type	Model	Description
 Extruded Aluminum	BVE	Extruded construction provides a quality finished appearance. The units are designed with deep louvered overlapping blades with storm drips on the rear of the blades. The units also have a high water stop at the rear of the unit.
 Flanged Extruded Aluminum	BVF	Extruded construction with an aesthetically pleasing flanged frame for easier installation in existing walls. The units are designed with deep louvered overlapping blades with storm drips on the rear of the blades. The units also have a water stop at the rear of the unit.

	BVE					BVF
	8⅛ x 7¾	12 x 7¾	15⅝ x 7¾	16½ x 7¾	Other sizes	All sizes
Anodized^	In Stock^	In Stock^	In Stock^	In Stock^	10 Days	10 Days
Mill Finish	In Stock	In Stock	In Stock	In Stock	10 Days	10 Days
Anodized*	5 Days	5 Days	5 Days	5 Days	15 Days	15 Days
Painted**	10 Days	10 Days	10 Days	10 Days	15 Days	15 Days

^ 204 R1, clear
* 204 R1, medium, dark, by others
** Primer, Baked Enamel, Acroflur®, Kynar®, Mica - all done at Greenheck
*** Baked Enamel paint only

Model	Best Available Program
Sizes up to 48 x 48 inches	5 Days
All models and Sizes	10 Days
Painted Finishes	15 Days

Louver Penthouses

Greenheck penthouses offer clean lines, mitered corners, all aluminum construction and removable hoods.

For complete product information on Model WIH Intake and WRH Relief, refer to Greenheck's Gravity Ventilators catalog, or contact your local representative.

Product Type	Model	Description
 Penthouse	WIH WRH	The low silhouette louvered penthouses are designed for intake (WIH) or relief (WRH) applications with either natural gravity or positive pressure systems. These units feature a storm-proof aluminum louver with mitered corners and clean horizontal lines. The design affords lower pressure drops while maintaining low hood heights. Removable cover is lined with fiberglass to prevent condensation. Maximum throat dimension is 60 x 120 inches.

Louver Qualifications and Licenses

Greenheck offers the most AMCA licensed louvers in the industry, including Miami-Dade Qualified and Florida Product Approved products.

License	Model	Description
AMCA Licensed: Water Penetration and Air Performance	ESD-635D, ESD-635DE, ESS-502D, ESD-435X, ESD-635X, ESJ-202, 401, 602, ESK-402, 602, ESJ-401RM, 602RM, ESK-402RM, 602RM, EDJ-202, 401, 430, 601, EDK-402, 430, 602, ESD-202, 403, 435, 603, 635, EDD-401, 601, EHM-601, SES-202, 401, SEH-202, 401, SED-202, 401, 501, ECD-401, 601, EAC-401, 601, EACA-601, EACA-601D, EACN-601, EAD-401, 601, 635, EAH-401, FSJ-402, 602, FDS-402, 602, FAJ-402, 602 and FAD-402, 602, 635	Greenheck Fan Corporation certifies that the stated models are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to water penetration and air performance.
AMCA Licensed: Water Penetration, Sound, and Air Performance	AFJ-120, 601, 801, AFA-801, AFS-120, AFJ-601D and AFJ-601X	Greenheck Fan Corporation certifies that the stated models are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to water penetration, air performance and sound ratings.
AMCA Licensed: Water Penetration, Air Performance, Wind-Driven Rain	EVH-201, 301, 401, 501, 602, 801, EHH-201, 401, 501, 601, 701, EVH-501D, EVH-660D, EHH-601D, EHH-601DE, EHV-901, EHV-901D, EHH-501X and EVH-602X	Greenheck Fan Corporation certifies that the stated models are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to water penetration, air performance and wind-driven rain.
AMCA Licensed: Air Performance	EAH-690 (90° blade angle)	Greenheck Fan Corporation certifies the stated models are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance.
AMCA Listed: Impact Resistant Louver Basic Protection	ESD-635D, ESD-635DE, ESD-635X, ESD-435X, EACA-601D	Greenheck Fan Corporation certifies that the product shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program.
AMCA Listed: Impact Resistant Louver Enhanced Protection	AFJ-601D, AFJ-601X, EHH-501X, EVH-602X, EHH-601D, EHH-601DE, ESD-635D*, 635X*, ESS-502D, *0.125" Frame & Blade	Greenheck Fan Corporation certifies that the product shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program.
AMCA Listed: High Velocity Rain Resistant and Impact Resistant Louver Enhanced Protection	EHV-901, EHV-901D, EVH-501D, EVH-602X, EVH-660D	Greenheck Fan Corporation certifies that the product shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program.
MIAMI-DADE COUNTY APPROVED Miami-Dade County Qualified	AFJ-601D, EACA-601D, ESD-635D, ESD-635DE, EHH-601D, EHH-601DE, EHV-901D ESS-502D, EVH-501D, EVH-660D EHH-601PD, ESD-635PD	All models comply with Miami-Dade structural test protocols TAS-201, Large Missile Impact Test (ASTM E1996), TAS-202, Uniform Static Pressure Test (ASTM E330) and TAS-203, Cyclic Wind Pressure Test.
CLASSIFIED UL Florida Product Approved and UL Classified	AFJ-601X, ESD-435X, ESD-635X, EHH-501X, EVH-602X	All mechanically fastened Florida Product Approved models comply with TAS-202, Uniform Static Pressure Test (ASTM E330). Models also comply with TAS-201 Large Missile Impact Test (ASTM E1996), TAS-203 Cyclic Wind Pressure Load Test with optional welded construction.

Options and Accessories

We have a full line of accessories available on all Quick Build programs.

- Standard birdscreen
- Standard insect screen
- Clip angles
- Flange frame
- Standard finishes
- Triangular Shapes *(10 day mill; 15 day painted finishes)*

These accessories and options allow Greenheck to complete your project just as you envision it.

Louver Finishes

Choosing the right finish is as critical to a louver project as performance and ratings. The following chart puts complete application information at your fingertips to make the right choice.

Finish Type	Description/Application	Color Selection	Standard Warranty (Aluminum)
2-coat and 3-coat 70% Kynar 500®/Hylar 5000® AAMA 2605 – Dry film thickness 1.2 mil. (AKA: Duranar®, Fluoropon®, Trinar®, Fluoropolymer, Polyvinylidene Fluoride, PVDF2)	**"Best."** The premier finish for extruded aluminum. Tough, long-lasting coating has superior color retention and abrasive properties. Resists chalking, fading, chemical abrasion and weathering.	Standard Colors: Any of Greenheck's 24 standard colors can be furnished in 70% or 50% Kynar 500®/ Hylar 5000® or Baked Enamel.	10 Years (Consult Greenheck for availability of extended warranty)
2-coat and 3-coat 50% Kynar 500®/Hylar 5000® AAMA 2604 – Dry film thickness 1.2 mil. (AKA: Acroflur®, Acrynar®)	**"Better."** Tough, long-lasting coating has excellent color retention and abrasive properties. Resists chalking, fading, chemical abrasion and weathering.	2-Coat Mica: Greenheck offers nine standard 2-coat Mica colors. Other colors are available. Consult Greenheck for possible extra cost when selecting non-standard colors or special finishes.	5 Years
Baked Enamel AAMA 2603 – Dry film thickness 0.8 mil. (AKA: Acrabond Plus®, Duracron®)	**"Good."** Provides good adhesion and resistance to weathering, corrosion and chemical stain.		1 Year
Color Anodize AA-M10C21A44 (>0.7 mil)	"Two-step" anodizing is produced by following the normal anodizing step with a second, colorfast electrolytic process.	Light, Medium or Dark Bronze; Champagne; Black	5 Years
Clear Anodize 215 R-1 AA-M10C21A41 (>0.7 mil)	Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack.	Clear	5 Years
Clear Anodize 204 R-1 AA-M10C21A31 (0.4-0.7 mil)	Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack.	Clear	1 Year
Industrial Coatings	Greenheck offers a number of industrial coatings such as Hi-Pro Polyester, Epoxy, and Permatector™. Consult a Greenheck Product Specialist for complete color and application information.		Consult Greenheck
Mill Finish	Materials may be supplied in natural aluminum or galvanized steel finish when normal weathering is acceptable and there is no concern for color or color change.		Not available

Finishes meet or exceed AAMA 2605, AAMA 2604, AAMA 2603 and AAMA 611 requirements.
Please consult www.greenheck.com for complete information on standard and extended paint warranties.
Paint finish warranties are not applicable to steel products.

Accessories

Mounting Options - Utility and Centrifugal and Industrial Fans

The mounting options shown here (type A and B) relate to the Selection Guide For Vibration Isolation as published in the latest ASHRAE applications handbook, HVAC Applications-Sound and Vibration Control.

Direct Mount, Type A - No base required. Isolators are attached directly to equipment. Direct isolation can be used if equipment is unitary and rigid without the use of additional support. Direct isolation is not recommended for equipment having large overhung loads (e.g. motors on Arrg. 9 fans). If there is any doubt that equipment can be supported directly on isolators, use rails, bases or consult the factory.

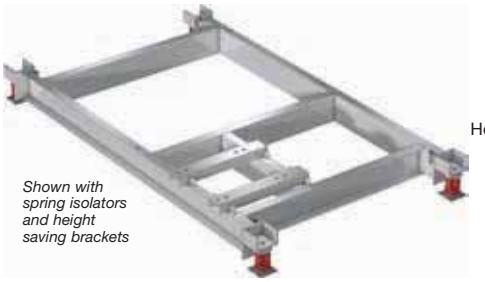
Spring Mount

Rubber Mount

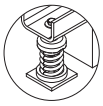
Arrg.	Model	Mounting Selection	
		Direct Mount, Type A	Isolation Base, Type B2
3	AFDW, BIDW		✓
4	SFD, SWD, CSW	✓	
9	CSW	✓	✓
10	SFB, SWB	✓	
	USF	✓	
	CSW	✓	✓

Isolation Bases, Type B2 - Isolation bases consist of steel members welded into a rigid one piece base. Motor slide rails are included where applicable. Bases are required for fans with independently mounted motors. Isolation bases are available without isolators, with rubber mounts or with spring mounts.

Quick Build bases are standard dimensions with factory-supplied motor and drives.



Shown with spring isolators and height saving brackets



Spring Mount with Height Saving Bracket

Rubber Mount

Rubber Mounts

Neoprene mountings consist of a steel top plate and base plate completely embedded in colored (oil-resistant) neoprene for easy identification of capacity. Neoprene mountings are furnished with a tapped hole in the center. This enables the equipment to be bolted securely to the rubber mount.

Free-Standing Open Spring Mounts

Free-standing spring isolators are unhoused laterally stable steel springs. They provide a minimum horizontal stiffness of 0.8 times the rated vertical stiffness and provide an additional 50% overload capacity. These isolators are equipped with a top mounted adjusting bolt and an acoustical nonskid base. Springs are color coded or identified to indicate load capacity.

Restrained Spring Mounts

Restrained spring isolators consist of laterally stable, free-standing springs assembled into a steel housing. These assemblies are designed for vertical and horizontal motion restraint. Restrained spring isolators can be used for blocking during equipment installation and are provided with leveling bolts. Springs provide 50% overload capacity and are color coded or identified to indicate load capacity. Restrained spring mounts are recommended for equipment subject to wind loading or large torquing forces.

Mounting Options - Horizontal Inline Centrifugal Fans

For ease of installation, knockouts are provided at each location where mounting brackets are shown. Universally adjustable brackets are available to mount the fan in hanging or base mounted positions.

Hanging Isolators - Complete hanging isolator kits are available with either spring, rubber, or neoprene isolators. The isolators are sized to match the weight of the fan. (Hanging rods supplied by others).

Base Isolators - Complete base isolator kits are available with either neoprene or spring isolators and are sized to match the weight of the fan.

Hanging Spring

Hanging Rubber

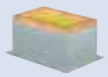
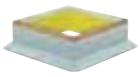
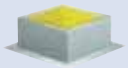
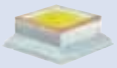
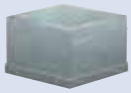
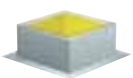
Hanging Neoprene

Standing Neoprene

Standing Spring

Roof Curbs, Extensions and Equipment Supports

A wide variety of roof curbs are available including flanged, straight-sided, canted, pitched, ridged, vented, and sound-absorbing. Extensions raise the fan discharge and can provide an accessible mouting location for dampers.

Product Type	Model	Description	Best Available
 Flat, insulated or non-insulated roof decks	GPI - Galvanized 12-inch high, with or without damper tray, square sizes	Welded, straight-sided construction with rigid fiberglass insulation and 2-inch mounting flange	In Stock
 Flat, pitched or ridged, insulated or non-insulated roof decks	GPI - Aluminum or galvanized, other heights, non-stock square and rectangular sizes		In Stock
 Flat, non-insulated roof decks	GPS - All types, sized to meet your requirements	Welded, canted construction with rigid fiberglass insulation	1 Day
 Flat, pitched or ridged, non-insulated roof decks	GPF - All types, sized to meet your requirements	Welded, straight-sided construction with rigid fiberglass insulation and 5-inch mounting flange	In Stock
 Flat, insulated roof decks	GPFHL - All types, galvanized and aluminum	Welded, straight-sided construction with single roof flashing flange 5-inch width. One inch thick insulation.	10 Days
	GPFHD - All types, galvanized	Welded, straight-sided construction with double-thick roof flashing flange 5-inch width. One inch thick insulation.	10 Days
 Flat, insulated roof decks	GPR - All types, sized to meet your requirements	Welded, raised cant construction with rigid fiberglass insulation	1 Day
 Adaptors/Reducers	Curb Adaptors and Reducers	Used to match new fans to existing roof curbs. Welded galvanized steel or aluminum.	1 Day
 Flat roof decks in kitchen applications	GPFV - Galvanized, square sizes	Welded, vented straight-sided curb designed for use with our model CUBE fan to provide the 40 inch minimum discharge height above the roof line (per NFPA 96)	1 Day
	GPFV - Aluminum or galvanized, other heights, nonstock square sizes		1 Day
 Curb extensions in kitchen systems	VCE - Galvanized, square sizes	Welded, vented curb extension designed for use with an 8-inch high roof curb and our model CUBE fan to provide the 40 inch minimum discharge height above the roof line (per NFPA 96)	In Stock *(size 22 only)*
	VCE - Aluminum or galvanized, other heights, non-stock square sizes		1 Day
 Curb extensions	GPE, GPEX	Welded, with access door for easy access to the damper and damper actuator as well as fulfilling additional height requirements	1 Day
 Equipment supports	GESS, GESR	Welded aluminum or galvanized canted construction	1 Day
 Insulated and non-insulated flat roof decks, pitched roofs, curb extensions	ATS, ATR, ATE, ATI Sound attenuating curbs	Welded aluminum or galvanized canted construction for curbs, straight-sided for extensions with rigid fiberglass insulation	10 Days
 Laboratory Exhaust Fans and Make-Up Air Units	GPFHL, GPFHD	Welded, straight-sided, insulated, 5-inch flashing flange	5 Days

Sizing: Curb with wood nailer should be 1-1/2 inches undersized from curb cap dimension.
Curb without wood nailer should be 1 inch undersized from curb cap dimension.

Options and Accessories		
• Damper trays	• Step for insulation - GPR only - up to 6 inches	• Ridge mount - GPI, GPF and ATS
• Insulation - all except GPE, VCE and GPFV	• Single pitch - GPI, GPF and ATS	• Double-shell construction - all except AT and GPE

Electrical Accessories

Call our parts department toll free at 800-355-5354—*for parts orders only*—with fan model and the serial number located on the fan nameplate.

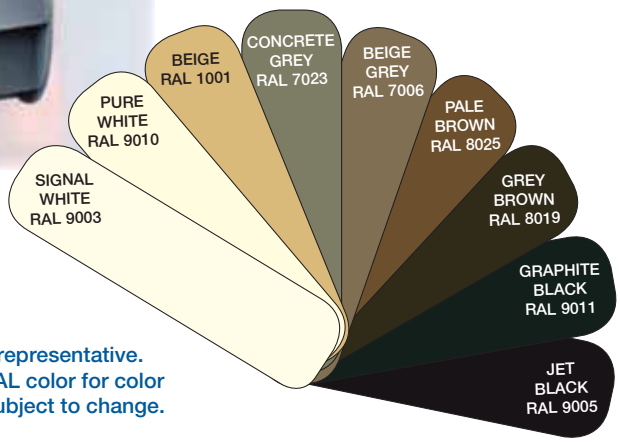
Description		Part Number	Rated up to: HP/AMPS	Voltage	Phase	Notes
Disconnect, Standard or Weatherproof 	NEMA-1	N1TS-1	1/2 hp	115	1	2x4 j-box included
		N1TS-2	1 hp	115	1	2x4 j-box included
		N1TS-3	2 hp	115	1	2x4 j-box included
		N1TS-4	2 hp	200/277	1	2x4 j-box included
		N1TS-6	7-1/2 hp	200/600	3	2x4 j-box included
	NEMA-3R	N3RTS-1	1/2 hp	115	1	Weatherproof enclosure
		N3RTS-6	7-1/2 hp	200/600	3	Weatherproof enclosure
Motor Starters 	NEMA-1, 4, 4X	MS1P	1 hp	110/240	1	Mounts in 2x4 j-box
	NEMA-1, 3R	MSSC	25 hp	200/600	3	
	NEMA-1, 3R, 4X	MSAC	25 hp	200/600	3	
Manual Switch 	NEMA-1	MS-15	1/6 hp	115	1	Three speed
		MS-1	1/2 hp	115	1	Single speed
		MS-16	1/2 hp	115	1	Single speed with pilot light
		381977	2 hp	200/277	1	Single speed
		383786	2 hp	200/600	3	Single speed
Speed Control 		385031	6 amps	115/127	1	2x4 j-box required
		385205	10 amps	115/127	1	2x4 j-box required
		385206	15 amps	115/127	1	2x4 j-box required
		380896	5 amps	220/240	1	2x4 j-box required
		385032	8 amps	220/240	1	2x4 j-box required
		382136	5 amps	277	1	2x4 j-box required
Switches 		872243	15 amps	115	1	1 function
		872242	15 amps	115	1	1 function with pilot light
		872244	15 amps	115	1	2 function, two single pole combination switch assembly
Motion Detector 		385246	12.5 amps	115	1	Time Delay Adjustment: 30 seconds to 30 minutes in 5 minute increments 2x4 j-box required
Time Delay 		874214	7.5 amps	115	1	Time Delay Adjustment: 10 to 60 minutes in 10 minute intervals 2x4 j-box required
Dehumidistat 		385364	1/6, 3 amps	115	1	
Minimum Ventilation Control 		876265	2.5 amps	115	1	Provide the perfect amount of ventilation to your space per ASHRAE 62.2 requirements.
Transformer 		383167	2.0 amps	230/277 to 115	1	
		383168	4.3 amps	230/277 to 115	1	
		383169	6.5 amps	230/277 to 115	1	
		383170	8.6 amps	230/277 to 115	1	
Fire Stat 		380028	8.0/4.0 amps	115/220	1	Type II Limit control temperature Auto reset
		383668	8.0/4.0 amps	115/220	1	Type III Adjustable Air Stat Closed circuit - 120°F to 200°F Open circuit - 100°F
Thermostat 		380044	16 amps	115	1	Reverse Acting Thermostat Contacts close on temperature rise Adjustable range 30° to 110°F

Coatings

Greenheck offers protective powder coatings for many of the Quick Build products.

Decorative coatings are ideal for projects where the fan exterior appearance is important and additional chemical resistance is not required. Customers can choose from nine standard RAL colors.

RAL is an independent organization providing a global color language. Referencing an RAL color ensures color uniformity worldwide.



Colors shown are only representative. Reference a specific RAL color for color matching. Colors are subject to change.

Protective coatings are available in a choice of four electrostatically applied powders. Powders available range from polyester urethanes to high performance epoxy providing an available selection for most environments.

Powder coatings offer a number of advantages over most wet coatings. Electrostatic painting involves applying a dry, charged particle to a grounded sheet metal. The results are uniform coverage and thickness with heavier coverage in the high charge areas (edges, corners, and pockets), that are difficult to reach with wet paint. Another advantage is environmental friendliness.

The following is a brief description of the protective coatings offered. For more information consult your local representative.

Permatector™

Permatector™ is the standard coating applied to all steel fans. Typical applications include corrosion resistance in indoor and outdoor environments. **RAL 7023 concrete grey (standard)*

Hi-Pro Polyester

(used in lieu of Air Dry Phenolic)

This coating is resistant to salt water, chemical fumes, and moisture in more corrosive atmospheres. It has superior chemical resistance, excellent abrasion and outdoor UV protection. This coating has protective qualities that exceed Air Dry Heresite. **RAL 7023 concrete grey (standard)*

Epoxy

Epoxy has excellent moisture resistance and moderate to good chemical resistance. Greenheck's epoxy is light tan in color so it will resist fading and chalking when exposed to sunlight.

Industrial Epoxy

Industrial Epoxy is a high performance epoxy with excellent chemical resistance in interior applications to a wide variety of chemicals including acids, caustics, solvents, and high moisture.

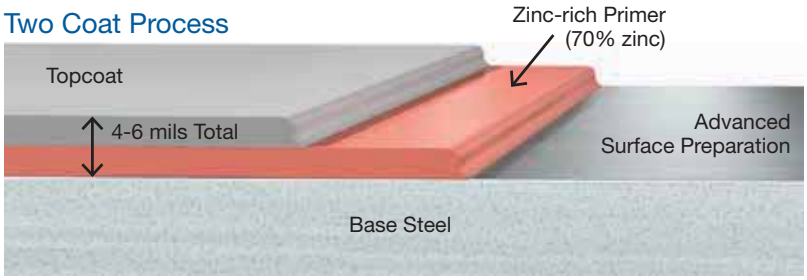
Two Coat System

When compared to a traditional single coat application, the benefits of the two coat system include:

- An automatic powder coat application produces uniform coverage and unmatched paint quality.
- The double coat thickness provides superior durability and protection from air and water.
- The zinc-rich primer includes an epoxy component that provides additional corrosion protection.
- The zinc-rich primer provides chemical protection of exposed steel to prevent corrosion.

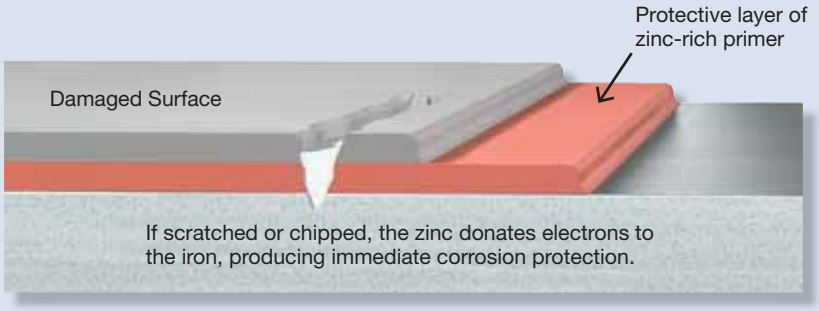
One Coat Process

Two Coat Process



The Zinc Advantage

The zinc-rich primer *actively* and *passively* protects the base steel if the coating becomes damaged and the steel is exposed to air and water.



The zinc-rich primer has a lower electrochemical potential than the base steel. As a result, the steel is *actively* held in a neutral state when exposed to a corrosive environment—the driving force of corrosion is halted. A protective layer forms over the damaged surface as a by-product of the chemical reaction and *passively* protects the exposed steel from further corrosion due to air and water.

Salt Spray ASTM B117					Durability		*Chemical Resistance Ratings					
Hours	1000	2000	3000	4000	Pencil Hardness ASTM D3363	Cross-Hatch Adhesion ASTM D3359-B	Bleach	Sulfuric Acid (10%)	HCl (10%)	MEK	Chlorine (0.1%)	Na0H (20%)
							0	0	0	1	0	1
Permatector™					3H	No Failure	0 - No effect 1 - Slight change in gloss or color 2 - Surface etching, severe staining, but film integrity remains 3 - Significant pitting, cratering, swelling, or erosion with obvious surface deterioration					
Hi-Pro Polyester					2H	No Failure						
Perma-Z					3H	No Failure						
LabCoat™					2H	No Failure						

*For additional chemical resistance of Hi-Pro Polyester, see Greenheck's Product Application Guide FA/110-04R5, Performance Coatings for Ventilation Products

Salt Spray ASTM B117 is a comparative test that indicates the corrosion resistance of powder paint coatings.

Pencil Hardness and Cross-Hatch Adhesion tests determine the durability of coating to withstand scratches, nicks and chips.

Chemical Resistance Ratings provide information on how each coating option will hold-up in certain chemical environments.

Greenheck Representative Directory

United States Representatives

ALABAMA	
*Birmingham - Air-Tech Incorporated	205-942-7081
*Mobile (*Pensacola, FL) - Air-Tech of Pensacola Inc	850-433-6443
ALASKA	
Anchorage - Stinebaugh & Company	907-345-8021
ARIZONA	
Mesa - ThermAir Systems	480-377-9255
Tucson - ThermAir Systems	520-623-0656
ARKANSAS	
Jonesboro (*Memphis, TN) - Air Components Inc	901-382-1884
Little Rock - AireTech Corporation	501-280-0404
Springdale - AireTech Corporation	479-756-8600
CALIFORNIA	
Chico - Norman S. Wright Mechanical Equipment	530-345-9289
Fresno - Norman S. Wright Mechanical Equipment / Duckworth	559-449-8701
*Los Angeles (Sylmar) - Norman S. Wright Mechanical Equipment Co.	818-367-6100
*Orange (Anaheim) - Norman S. Wright Climatec Mechanical Equipment Co.	714-632-9800
Pismo Beach - Norman S. Wright Climatec Mechanical Equipment Co.	805-773-2810
*Sacramento (Rancho Cordova) - Norman S. Wright Mechanical Equipment Co.	916-381-6666
San Diego - Norman S. Wright Climatec Mechanical Equipment Co.	858-368-3800
*San Francisco (Brisbane) - Norman S. Wright Mechanical Equipment Co.	415-467-7600
Santa Clara - Norman S. Wright Mechanical Equipment Co.	408-748-1304
Santa Rosa - Norman S. Wright Mechanical Equipment Co.	707-568-3903
Stockton (Escalon) - Norman S. Wright Mechanical Equipment Co.	209-599-7830
COLORADO	
Colorado Springs - CFM Company	719-528-1116
*Denver - CFM Company	303-761-2291
Fort Collins - CFM Company	970-493-7293
Grand Junction - CFM Company	970-243-4377
CONNECTICUT	
Newington - Buckley Associates Inc.	860-666-0555
Stratford - Buckley Associates Inc.	203-380-2405
DELAWARE	
Laurel - Ward-Boland Associates Inc.	302-629-7006
Wilmington (*Collingswood, NJ) - DelRen HVAC, Inc.	856-541-1776
DISTRICT OF COLUMBIA	
*Beltsville - C.G. Wood Company, Inc.	240-241-5300

**Denotes representatives who carry local inventory*

United States Representatives

FLORIDA	
*Fort Myers - Commercial Air Management Inc.	239-277-0029
Jacksonville - Stan Weaver & Company	904-398-9933
*Miami (Pembroke Park) - Cors-Air	954-456-4300
*Orlando - Stan Weaver & Company	407-581-6940
*Pensacola - Air-Tech of Pensacola Inc.	850-433-6443
Tallahassee - Air-Tech of Pensacola Inc.	850-523-4467
*Tampa - Stan Weaver & Company	813-879-0383
*West Palm Beach - Cors-Air	561-844-9767
GEORGIA	
Albany - Holden & Associates - Southwest	770-670-2722
*Atlanta - Holden & Associates - North Georgia	770-458-4000
Augusta - Holden & Associates - Southeast	706-854-0738
Columbus - Holden & Associates - Southwest	770-670-2702
Macon - Holden & Associates - Southwest	478-452-9887
Savannah - Holden & Associates - Southeast	912-944-3917
HAWAII	
*Honolulu (Waipahu) - Norman S. Wright Mechanical Equipment	808-678-3911
IDAHO	
Boise (Eagle) - Technical Air Products Inc.	208-377-2071
ILLINOIS	
*Chicago (Elk Grove Village) - Brucker Company	847-437-9690
Peoria - Brucker Company	309-691-5160
St. Louis, MO (Southern Illinois) - H.C. Sharp	314-351-6900
INDIANA	
Evansville (*Louisville, KY) - RL Craig Company Inc.	502-244-1600
Fort Wayne - Colby Equipment Co. Inc.	260-482-3773
*Indianapolis - Colby Equipment Co. Inc.	317-545-4221
IOWA	
Des Moines - Products Inc.	515-288-5738
KANSAS	
*Kansas City - Jorban-Riscoe Associates Inc.	913-438-1244
KENTUCKY	
*Louisville - RL Craig Company Inc.	502-244-1600
LOUISIANA	
*Baton Rouge - Air-Side Equipment Inc.	225-275-6930
New Orleans (Metairie) - Air-Side Equipment Inc.	504-837-2346
Shreveport - Reed Mechanical Equipment Inc.	318-687-8818
MAINE	
Gorham - Buckley Associates, Inc.	207-773-0078
MARYLAND	
Baltimore (Owings Mills) - Ward-Boland Associates Inc.	410-363-1833
*Beltsville - C.G. Wood Company Inc.	240-241-5300
Hagerstown (Frederick) - Ward-Boland Associates Inc.	301-378-2853
Laurel - Ward-Boland Associates Inc.	302-629-7006

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United States Representatives

MASSACHUSETTS	
*Boston (Hanover) - Buckley Associates Inc.	781-878-5000
Pittsfield (*Albany, NY) - Buckley Associates Inc.	518-438-7423
MICHIGAN	
Grand Rapids - Michigan Air Products	616-534-8000
Saginaw - Michigan Air Products	989-754-0409
*Troy - Michigan Air Products	248-837-7000
MINNESOTA	
*Minneapolis (New Hope) - TMS Johnson, Inc.	763-544-5442
Moorhead (*Fargo) - Therm-Air Sales	701-282-9500
Rochester - TMS Johnson, Inc.	763-544-5442
MISSISSIPPI	
*Jackson (Ridegeland) - Ward Mechanical Equipment, Inc.	601-956-3002
MISSOURI	
Kansas City (*Lenexa, KS)- Jorban-Riscoe Associates Inc.	913-438-1244
St. Louis - H.C. Sharp Company Inc.	314-351-6900
MONTANA	
Great Falls - Sound Air Inc.	406-727-8483
NEBRASKA	
Omaha (La Vista) - Commercial Air Management, Inc.	402-339-9177
NEVADA	
Las Vegas - Norman S. Wright Mechanical Equipment	702-361-4212
Reno - Norman S. Wright Mechanical Equipment	775-826-8622
NEW HAMPSHIRE	
*Manchester - Buckley Associates Inc.	603-669-3566
NEW JERSEY	
Sayreville - ADE Systems	732-553-0038
*Collingswood - DelRen HVAC, Inc.	856-541-1776
NEW MEXICO	
*Albuquerque - Mechanical Representatives Inc.	505-821-2563
NEW YORK	
*Albany - Buckley Associates Inc.	518-438-7423
*Buffalo - H & V Commercial Industrial Sales, Inc.	716-897-5010
*New York (Lynbrook) - ADE Systems, Inc.	516-568-6500
Rochester - Herman HVAC Products LLC	585-219-5908
Syracuse - Herman HVAC Products LLC	315-455-4901
NORTH CAROLINA	
Asheville - Hoffman & Hoffman Inc.	828-296-0111
Charlotte - Hoffman & Hoffman Inc.	704-364-4700
*Greensboro - Hoffman & Hoffman Inc.	336-292-8777
Raleigh - Hoffman & Hoffman Inc.	919-781-8011
Wilmington - Hoffman & Hoffman Inc.	910-791-4775

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United States Representatives

NORTH DAKOTA	
*Fargo - Therm-Air Sales Corporation	701-282-9500
OHIO	
*Cincinnati - Environmental Air Products, Inc.	513-489-9494
*Cleveland (Broadview Heights) - Air Control Products Inc.	440-526-3020
Columbus - Air Control Products Inc.	614-299-1747
*Toledo - Air Control Products Inc.	419-380-8990
OKLAHOMA	
*Oklahoma City - Engineered Equipment, Inc.	405-525-7722
Tulsa - AireTech Corporation	918-665-6600
OREGON	
*Medford - Johnson Air Products	541-772-2690
*Portland - Johnson Air Products	503-234-5071
PENNSYLVANIA	
Mechanicsburg - H & H Sales Associates Inc.	717-796-2401
*Pittsburgh - Pittsburgh Air Systems Inc.	412-539-1234
Scranton (Clarks Summit) - Colman Sales Co. Inc.	570-587-1188
Wilmington (*Collingswood, NJ) - DelRen HVAC, Inc.	856-541-1776
RHODE ISLAND	
Boston (Hanover) - Buckley Associates Inc.	781-878-5000
SOUTH CAROLINA	
Cayce - Hoffman & Hoffman Inc.	803-765-9360
Charleston (Wando) - Hoffman & Hoffman Inc.	843-884-3201
Greenville - Hoffman & Hoffman Inc.	864-676-1888
SOUTH DAKOTA	
Sioux Falls - Climate Systems Inc.	605-334-2164
TENNESSEE	
Chattanooga - Hoffman & Hoffman Inc.	423-693-2890
Knoxville - Hoffman & Hoffman Inc.	865-450-9770
*Memphis - Air Components Inc.	901-382-1884
Nashville - JJP Mechanical Reps LLC	615-251-4555
Tri-Cities / Johnson City - Hoffman & Hoffman Inc.	423-279-7117
TEXAS	
*Austin - Mechanical Reps Inc.	512-444-1835
*Dallas - Bartos Industries	214-350-6871
El Paso - Mechanical Representatives Inc.	915-779-1212
*Fort Worth - Bartos Industries	682-253-0122
*Houston - H.D. Grant Company Inc.	713-668-8880
*Lubbock - David G. Halley & Co. Inc.	806-745-3405
*San Antonio - Mechanical Reps Inc.	210-650-9005
Weslaco - Mechanical Representatives Inc.	956-412-1110

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United States Representatives

UTAH	
Salt Lake City (Midvale) - Mechanical Products Intermountain	801-352-9003
VERMONT	
Montpelier (*Albany, NY) - Buckley Associates Inc.	518-438-7423
VIRGINIA	
Alexandria (*Beltsville, MD) - C.G. Wood Company Inc.	240-241-5300
Chesapeake - Hoffman & Hoffman Inc.	757-548-1700
Richmond - Hoffman & Hoffman Inc.	804-272-1500
Roanoke - Hoffman & Hoffman Inc.	540-725-8701
WASHINGTON	
*Seattle - Dorse & Company Inc.	206-284-2610
Spokane - Dorse & Company Inc.	509-443-1220
WEST VIRGINIA	
Hagerstown (Frederick) - Ward-Boland Associates Inc.	301-378-2853
St. Albans - Mason & Barry Inc.	304-755-0781
WISCONSIN	
Eau Claire (*Minneapolis, MN) - TMS Johnson, Inc.	763-544-5442
Green Bay - Vyron Corporation	920-405-8822
Madison - Vyron Corporation	608-729-5690
Milwaukee (Waukesha) - Vyron Corporation	262-783-3600
WYOMING	
Cheyenne (Fort Collins, CO) - CFM Company	970-493-7293
Great Falls - Sound Air Inc.	406-727-8483

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Canada Representatives

ALBERTA	
*Calgary - E.H. Price Ltd.	403-777-2790
*Edmonton - E.H. Price Ltd.	780-477-9231
BRITISH COLUMBIA	
Kelowna - E.H. Price Ltd.	250-765-7226
Vancouver - E.H. Price Ltd.	604-777-1712
Victoria - E.H. Price Ltd.	250-475-1500
MANITOBA	
Winnipeg - E.H. Price Ltd.	204-982-2222
NEW BRUNSWICK AND PRINCE EDWARD ISLAND	
Moncton - Global Mechanical Systems	506-857-4887
NEW FOUNDLAND AND NOVA SCOTIA	
Dartmouth - E.H. Price Ltd.	902-468-1310
Dartmouth - Global Mechanical Systems	902-443-1114
ONTARIO	
Hamilton - E.H. Price Ltd.	905-383-3599
London - E.H. Price Ltd.	519-451-5100
Ottawa - E.H. Price Ltd.	613-725-2029
Thunder Bay - E.H. Price Ltd.	807-622-3311
Toronto (Woodbridge) - E.H. Price Ltd.	905-669-8988
QUEBEC	
Laval - E.H. Price Ltd.	514-334-9804
Quebec City - E.H. Price Ltd.	418-622-9946
SASKATCHEWAN	
Regina - E.H. Price Ltd.	306-525-2367
Saskatoon - E.H. Price Ltd.	306-931-3316

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International Representatives

ALGERIA		
Jacteco Algeria - Wilaya Tipaza	rayan or tarek@jacteco.com	23-16-611-66003
ARGENTINA		
Air-Technick SRL Cermac - Temperley, Buenos Aires	info@cermac-arg.com.ar	541-114-292-3453
AUSTRALIA		
I&M Industries	mal@iandmindustries.com.au	614-1125-3423
BAHAMAS		
Cors-Air Bahamas	info@cors-air.com	954-456-4300
BAHRAIN		
Awal Products Co. W.L.L.	awalprod@batelco.com.bh	973-178-13535
BOLIVIA		
SAEG Engineering Group - Miami, Florida	miami@saeg.com	305-718-8146
BRUNEI		
BenAire Engineering PTE, Ltd	benaire@singnet.com.sg	6567410280
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SAEG Chile - Santiago	msolar@saeg.com	56-22-407-6976
CHINA		
	gme.service@greenheck.com.cn	
COLOMBIA		
SAEG Colombia - Bogota	colombia@saeg.com	571-617-9140
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Strong Internacional Centro America - San Jose	ingenieria@sica.co.cr	50-62-589-5050
CYPRUS		
TRCI Ltd. - Nicosia	renos@trciltd.com	357 2242-7980
DOMINICAN REPUBLIC		
SAEG Dominican Republic	saeg@iname.com	809-540-7234
ECUADOR		
SAEG Ecuador - Guayaquil	xenriquez@saeg.com	305-718-8146
EGYPT		
Contact, Inc.	info@contact-egypt.com	202-2794-1517
EL SALVADOR		
Strong Internacional Centro America - San Salvador	wmedina@sica.co.cr	50-32-229-8939
GUAM		
Norman S. Wright	mcalad@norman-wright.com	671-475-3911
GUATEMALA		
Strong Internacional Centro America - Guatemala City	jrmatheu@sica.co.cr	502 2220-3508
HONDURAS		
Strong Internacional Centro America - San Pedro Sula	gromero@sica.co.cr	50-42-510-0833
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GREENHECK
Building Value in Air.
P.O. Box 410 • Schofield, WI 54476-0410

Greenheck Quick Delivery Program

Greenheck is known worldwide as the leading manufacturer of air movement and control equipment. We have achieved this leadership position by putting the customer first through our commitment to quality and service.

Quick Delivery

Our Quick Delivery program offers a variety of stock products in five strategically located warehouses across North America.

Our Distribution Centers are located in:

- Schofield, Wisconsin
- Sacramento, California
- Greensboro, North Carolina
- Dallas, Texas
- Miami, Florida

In general, quick delivery stock orders entered by 1:00 p.m. CST will ship the same day. Orders entered after 1:00 p.m. will ship the next day. If any part of your QD order is out of stock in the distribution center closest to you, we will ship it from the next best location as soon as possible.

Quick Build

If your application requires one of our quick build product configurations, we offer a number of lead times to meet your needs. Each model shows the best lead time available:

- 1 day
- 3 days
- 5 days
- 10 days
- 15 days
- 25 days

Look to Greenheck to meet your ventilation needs as the leader in the air movement and control industry.

Our Commitment

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Specific Greenheck product warranties are located on greenheck.com within the product area tabs and in the Library under Warranties.

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