

Architectural Products

Louvers, Sunshades, Grilles, Screens



BUILDING VALUE IN AIR.



Why Greenheck?

For over 50 years, the Greenheck name has been synonymous with innovation, product quality and customer service. Our louvers have become industry standards for the same reasons. We have the most AMCA-licensed louvers in the industry—and more than 100 standard models in all. Our aggressive research, development and testing keeps Greenheck a leader in the air movement and control industry.

Breadth of Quality Products

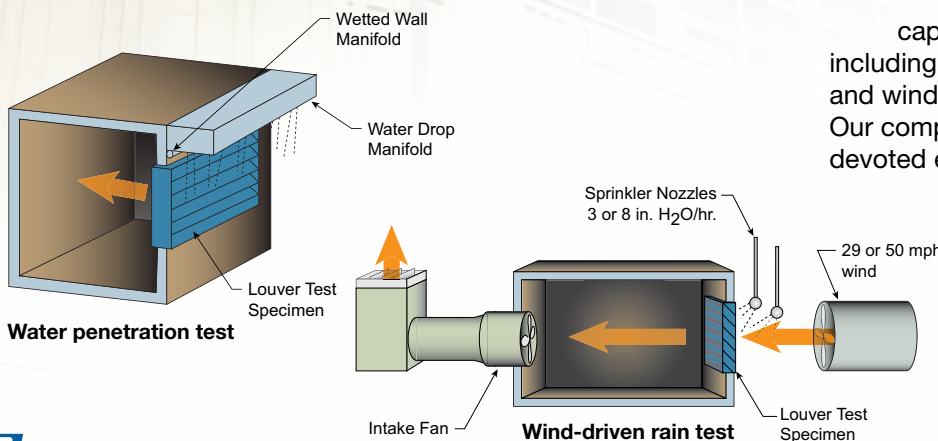
At Greenheck, we have a reputation. With a full line of louver models to choose from, we value quantity as much as quality—and we're known for it. Engineers know that the Greenheck brand means a wide selection of quality louvers at a good value. And our complete line of louvers includes models that meet or exceed all related codes—including numerous Florida Product Approved, Miami-Dade County qualified, UL-classified and ASTM approved models.

Unlimited Custom Engineering Capabilities

Your vision is ultimately our mission. Our sales and engineering teams will partner with you to provide the exact louvers you envision. Any special shape is available (the only limit is your imagination).

Unparalleled In-house Testing

Greenheck's in-house testing capabilities are second to none, including complete water penetration and wind-driven rain test chambers. Our comprehensive testing laboratory is devoted exclusively to the development and testing of louver products to the latest versions of AMCA, Miami-Dade County, and other industry standards. The result? We offer the most AMCA-licensed louvers in the industry—and an impressive product development program.



Outstanding Customer Service

Striving to be the easiest company to do business with, our product specialists are louver experts ready to assist you, with an industry-leading CAPS program supporting you every step of the way. All Greenheck products are further supported by the best product literature and electronic media. You'll also find extensive product information online at www.greenheck.com.



Quick, Quicker, Quickest

Our Quick Delivery program offers the most louver models available next-day, and the most finish options on an eight-day program. To round it out, our Quick Delivery program offers mill finished louvers next-day and in 3, 5, and 10 days. Our complete line of standard finishes are available in 8, 10, 12 and 17 days. When you say, "make it quick," we can deliver—literally.



A Global Presence

With four manufacturing locations, eight national distribution centers, and three international distribution centers, our products reach all corners of the world. Whether you're in Denver or Dubai, we have a worldwide network of reps and employee-owners who will see your project through and supply the products you need.



Manufacturing

- Rocklin, CA
- Schofield, WI
- Frankfort, KY
- Kunshan, China

International Distribution

- China
- Mexico
- United Arab Emirates

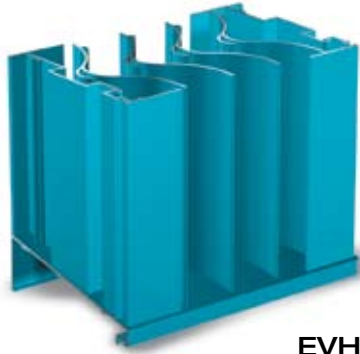
National Distribution

- Schofield, WI
- Rocklin, CA
- Dallas, TX
- Miami, FL
- Greensboro, NC
- Union, NJ
- Columbus, OH
- Las Vegas, NV

Wind-Driven Rain

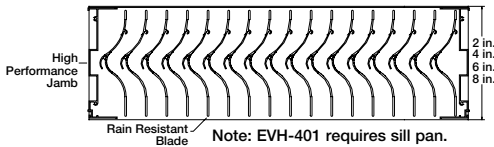
< EVH, EHH >

Our complete line of wind-driven rain models are the most effective in minimizing water penetration through openings that are sensitive to moisture. The design of each model incorporates a drainable head member and vertical (EVH) or horizontal (EHH) rain resistant blades to provide maximum resistance to wind-driven rain as shown by the most stringent AMCA 500L test procedure.



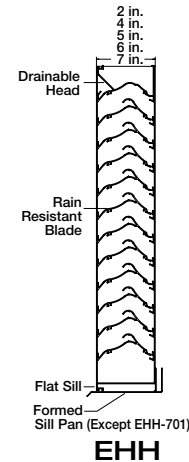
Model EVH:
Vertical blades lend the best protection against wind-driven rain.

EVH



Model EHH:
Offers excellent performance against wind-driven rain, along with the aesthetically pleasing look of a horizontal blade. Model EHH-501X is Florida Product Approved (see p.6).

WIND-DRIVEN RAIN TEST RESULTS				Wind Velocity - 29 mph Rainfall - 3 in./hr. ²		Wind Velocity - 50 mph Rainfall - 8 in./hr. ²	
	Airflow (cfm)	Free Area Velocity (fpm)	Core Area Velocity (fpm) ¹	Effectiveness	Classification	Effectiveness	Classification
EVH-201	9670	1693	680	100%	A	-	-
	9812	1718	690	-	-	99.9%	A
EVH-401	9489	1487	673	100%	A	-	-
	8037	1260	570	-	-	99.7%	A
EVH-602	9210	1566	693	99.4%	A	-	-
	9050	1539	681	-	-	99.1%	A
EVH-801	9343	1850	703	99.6%	A	-	-
	9197	1821	692	-	-	99.7%	A
EHH-201	2552	412	178	99.9%	A	-	-
	1420	229	99	-	-	99.5%	A
EHH-401	8380	1247	591	99.2%	A	-	-
	1390	207	98	-	-	99.1%	A
EHH-501	9550	1404	689	99.1%	A	-	-
	9550	1404	689	-	-	97.2%	B
EHH-601	9577	1263	689	100%	A	-	-
	4101	541	295	-	-	99.1%	A
EHH-701	9577	1336	689	99.9%	A	-	-
	5477	764	394	-	-	99.1%	A



RAIN RESISTANT EXTRUDED LOUVERS FEATURES & PERFORMANCE		EVH-201	EVH-401	EVH-602	EVH-801	EHH-201	EHH-401	EHH-501	EHH-601	EHH-701
Blade	Style	RR	RR	RR	RR	RR	RR	RR	RR	RR
Blade	Thickness (inches)	0.062	.081	.081	.081	.062	.081	.081	.081	.081
Frame	Thickness (inches)	0.062	.081	.081	.081	.062	.081	.081	.081	.081
Free Area (48 x 48)	Square Feet	5.71	6.38	5.88	5.05	6.20	6.72	6.80	7.58	7.17
Free Area (48 x 48)	%	36	40	37	32	39	42	43	47	45
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		1250	1250	1250	914	1250	1250	1250	1250	1250
Pressure Drop @ Maximum Intake Velocity (in. wg)		.368	.370	.161	.100	.198	.296	.224	.324	.491
		(48 x 48 unit; 15 min. duration)								
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		7138	7975	7350	6313	5667	8400	8500	9475	8962
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		5185	5895	7832	8625	5185	5820	5998	6094	4015

RR = Rain Resistant



Greenheck Fan Corporation certifies that Models EVH-201, 401, 602, and 801; EHH-201, 401, 501, 601 and 701 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, water penetration, and wind-driven rain ratings only.

³ Wind Driven Rain Penetration Classes	
Class	Effectiveness
A	1 to .99
B	0.989 to 0.95
C	0.949 to 0.80
D	Below 0.8

NOTES: Based on louver size 48 in. x 48 in. ¹ Core area is the open area of the louver face (face area less louver frames). Core area velocity is the airflow velocity through the core area of the louver.

Florida Product Approved/ Miami-Dade

08 91 00/GRE
BuyLine 6978

< ESD-603D, ESD-603D/HCD-240, SDLE, ESS-501D >

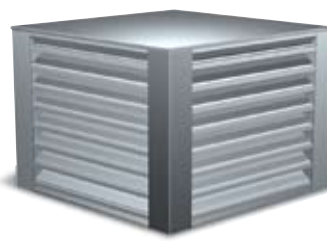
The following models are designed to meet the stringent criteria established by the Florida Building Code for Florida Product Approval and Miami-Dade Building Code Compliance Office for Notice of Acceptance.



Model ESD-603D:
An extruded aluminum louver with high performance drainable blades designed specifically for applications having extremely high structural design loadings and large missile impact requirements.
Florida Product Approval No: 4826.1
Miami-Dade Notice of Acceptance No: 06-0526.02
Maximum Design Wind Load: 138 PSF



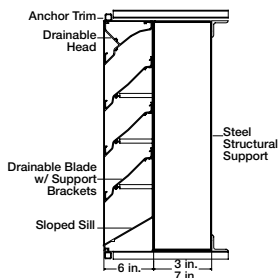
Model ESD-603D/HCD-240:
Incorporates a factory mounted heavy duty control damper designed specifically for applications having extremely high structural design loading, large missile impact requirements, and sensitivity to the penetration of wind-driven rain.
Florida Product Approval No: 4826.2
Miami-Dade Notice of Acceptance No: 02-0415.09
Maximum Design Wind Load: 138 PSF



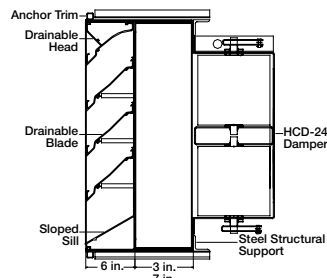
Model SDLE:
The Severe Duty Louvered Enclosure may be applied as an intake or exhaust gravity ventilator, or as an enclosure for several Greenheck fan models (or other rooftop equipment). Greenheck's SDLE was the first of its kind in the industry to be Miami-Dade qualified. Designed for applications having extremely high structural design loadings and large missile impact requirements.
Florida Product Approval No: 4825.1
Miami-Dade Notice of Acceptance No: 03-0422.05
Maximum Design Wind Load: 140 PSF



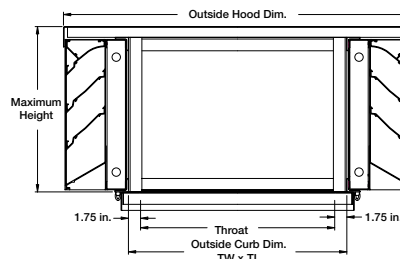
Model ESS-501D:
An extruded aluminum sightproof louver designed specifically for applications having extremely high structural design loadings.
Miami-Dade Notice of Acceptance No: 05-0912.13
Maximum Design Wind Load: 110 PSF



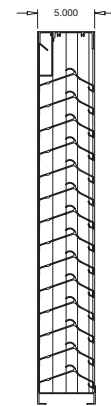
ESD-603D



ESD-603D/HCD-240



SDLE Intake/Exhaust
Penthouse



ESS-501D

FLORIDA PRODUCT APPROVED/ MIAMI - DADE COUNTY LOUVERS FEATURES & PERFORMANCE		ESD-603D	ESD-603D/ HCD-240	ESS-501D
Blade	Style	D	D	C
Blade	Thickness (inches)	0.125	0.125	.081
Frame	Thickness (inches)	0.125	0.125	.081
Free Area (48 x 48)	Square Feet	7.67	7.67	8.31
Free Area (48 x 48)	%	48	48	51.9
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		1232	1232	1057
	(48 x 48 unit; 15 min. duration)			
Pressure Drop @ Maximum Intake Velocity (in. wg)		0.317	0.317	0.25
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		9449	9449	8780
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		7118	7118	7005

D = Drainable

C = Chevron



Greenheck Fan Corporation certifies that Models ESD-603D, ESD-603D/HCD-240 and ESS-501D 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 and water penetration ratings only.

South Florida Building Code (Miami-Dade County):

Models ESS-501D, ESD-603D, ESD-603D/HCD-240 and SDLE have been tested in accordance with and pass the following Florida Building Code (Miami-Dade County) test protocols: **TAS 201** (Large Missile Impact Test), **TAS 202** (Uniform Static Air Pressure Test) and **TAS 203** (Cyclic Wind Loading Test). Additionally the ESD-603D/HCD-240 has been tested in accordance with and passes the following Florida Building Code (Miami-Dade County) test protocol: **TAS 100 (A)** (Wind-Driven Rain Test).

Florida Product Approved

< EHH-501X, ESD-435X, ESD-635X, AFJ-601X >

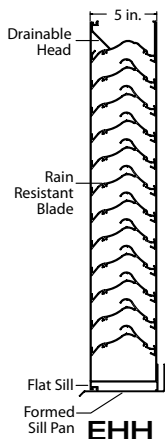
Florida Product Approved models meet the stringent requirements of the Florida Building Code and may be applied in any location where a louver product and installation method are designed to meet a specific wind-load. Each of our “X-Factor” louvers may be applied in locations where wind-loads approach 200 PSF! Though these “X-Factor” louvers are designed to meet the Florida Building Code, their application need not be limited to Florida or the Southeastern United States. In addition to boasting a Florida Product Approval number, all of our “X-Factor” louvers are UL-classified and AMCA-licensed, allowing designers to select and apply with confidence.



Model EHH-501X:

Offers superior performance against wind-driven rain, along with the aesthetically pleasing look of a horizontal blade.

Florida Product Approval No: FL6876.2



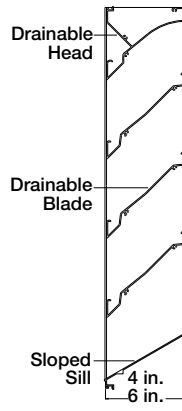
EHH

Models ESD-435X and ESD-635X:

Have drainable blades and offer outstanding resistance to water penetration. Their 35 degree blades further provide high free.

Florida Product Approval No: FL6876.3 (ESD-435X)

Florida Product Approval No: FL6876.4 (ESD-635X)

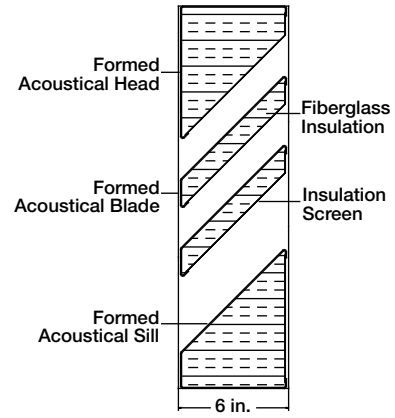


ESD

Model AFJ-601X:

Incorporates acoustically insulated blades to provide for sound attenuation to lower infiltrating or escaping noise.

Florida Product Approval No: FL6876.1



AFJ

FLORIDA PRODUCT APPROVED LOUVERS FEATURES & PERFORMANCE		EHH-501X	EHH-435X	EHH-635X	AFJ-601X
Blade	Style	RR	D	D	J
Blade	Thickness (inches)	.081	.081	.081	.080
Frame	Thickness (inches)	.081	.081	.081	.080
Free Area (48 x 48)	Square Feet	6.80	8.98	9.41	4.89
Free Area (48 x 48)	%	43	56	59	31
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		1250	1151	1250	799
	(48 x 48 unit; 15 min. duration)				
Pressure Drop @ Maximum Intake Velocity (in. wg)		.224	.213	.234	.065
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		8500	10336	11762	3907
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		5998	9285	9956	6015

RR = Rain Resistant D = Drainable J = J Blade

WIND-DRIVEN RAIN TEST RESULTS				Wind Velocity - 29 mph Rainfall - 3 in./hr. ²		Wind Velocity - 50 mph Rainfall - 8 in./hr. ³	
	Airflow (cfm)	Free Area Velocity (fpm)	Core Area Velocity (fpm)	Effectiveness	Classification	Effectiveness	Classification
EHH-501X	9550	1404	689	99.1%	A	-	-
	9550	1404	689	-	-	97.2%	B



Models listed are UL-classified.

Greenheck Fan Corporation certifies that Models EHH-501X, ESD-435X, ESD-635X and AFJ-601X 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, water penetration, and wind-driven rain ratings for model EHH-501X. The AMCA Certified Ratings Seal applies only to air performance and water penetration ratings for models ESD-435X, ESD-635X and AFJ-601X.



Thinline stationary louvers are narrow profile products designed for interior and exterior applications. They are commonly used for air conditioning grilles where high free area and low airflow resistance are required. Frame options make them ideal for installation in curtainwall, window wall systems and door applications.



Model ESU:

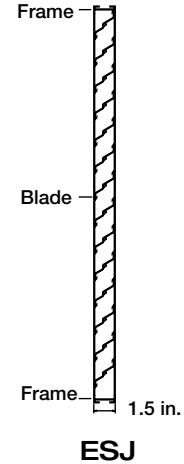
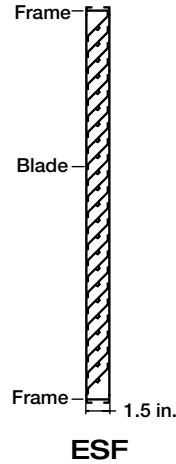
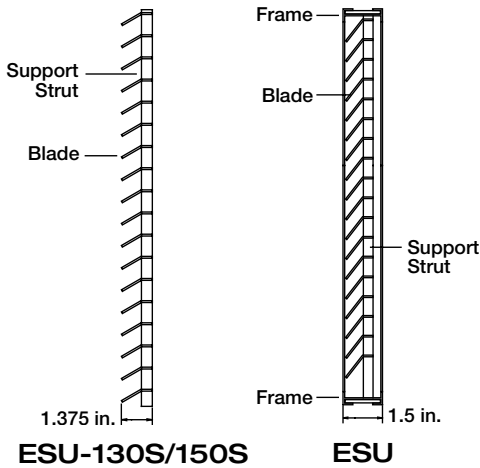
Offers extremely high free area, resulting in low airflow resistance. Models ESU-130S and ESU-150S are frameless, lending a total product depth of only 1.375 inches.

Model ESF:

Offers narrow profile frame members and flat style blades.

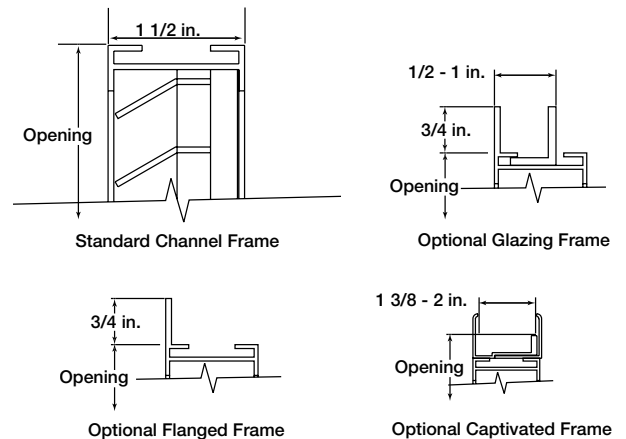
Model ESJ:

Offers narrow profile frame members and J style blades.



THINLINE EXTRUDED LOUVERS FEATURES & PERFORMANCE		ESU-150S	ESU-130S	ESU-150	ESU-130	ESF-145	ESJ-150
Blade	Style	TL	TL	TL	TL	F	J
Blade	Thickness (inches)	.063	.063	.063	.063	.063	.063
Frame	Thickness (inches)	.063	.063	.063	.063	.063	.063
Free Area (48 x 48)	Square Feet	7.7	11.41	7.4	10.95	6.08	7.29
Free Area (48 x 48)	%	48	71	46	69	38	46
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		(48 x 48 unit; 15 min. duration)					
Pressure Drop @ Maximum Intake Velocity (in. wg)		.035	.030	.035	.030	.055	.038
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		3850	5705	3700	5475	3040	3645
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		10395	14833	9990	14235	4925	7144

TL = Thinline F = Flat J = J Blade



Non-Drainable & Drainable Head

< ESJ, ESK >

< EDJ, EDK, ESID >

Stationary blade non-drainable louvers are what come to most people's minds when the term "louver" is mentioned. Both models offer a hidden mullion design, for a continuous blade appearance, when multiple sections are necessary.

Drainable head louver models incorporate a drainable head member to improve their ability to prevent water penetration. The head member has an additional drain gutter to capture the water running down the building exterior wall and further channel water to vertical downspouts located within jamb members. Optional 30 degree blades are available to maximize free area.



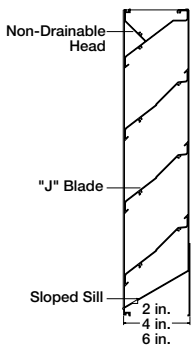
Model ESJ:
Design incorporates J style blades.

Model ESK:
K style blades offer an additional offset or "rain hook" to provide extra protection against water penetration.

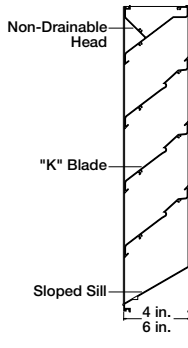
Model EDJ:
Drainable head feature offers increased performance against water penetration. J style blades.

Model EDK:
Drainable head feature offers increased performance against water penetration. K style blades.

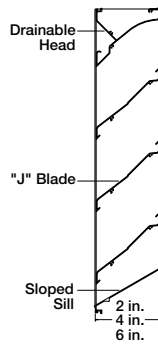
Model ESID:
A specialty air intake/discharge louver which helps prevent the short cycling of air when air intake and discharge ductwork are hooked up to the same louver.



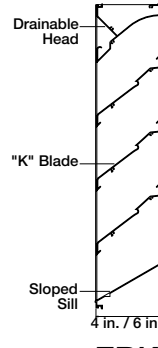
ESJ



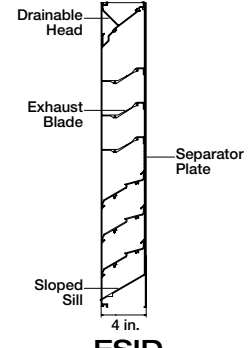
ESK



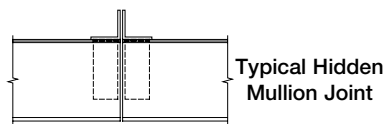
EDJ



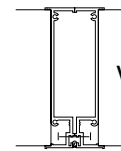
EDK



ESID



Typical Hidden Mullion Joint



Typical Vertical Visible Mullion Joint

STATIONARY NON-DRAINABLE & DRAINABLE HEAD EXTRUDED LOUVERS FEATURES & PERFORMANCE		ESJ-202	ESJ-401	ESJ-602	ESK-402	ESK-602	EDJ-202	EDJ-401	EDJ-601	EDJ-430	EDK-430	EDK-402	EDK-602	ESID-430 (INTAKE)	ESID-430 (DISCHARGE)
Blade	Style	J	J	J	K	K	J	J	J	J	K	K	K	K	DC
Blade	Thickness (inches)	.063	.081	.081	.081	.081	.063	.081	.081	.081	.081	.081	.081	.081	.081
Frame	Thickness (inches)	.063	.081	.081	.081	.081	.063	.081	.081	.081	.081	.081	.081	.081	.081
Free Area (48 x 48)	Square Feet	6.01	8.44	8.73	8.45	8.46	6.01	8.32	8.69	8.35	8.8	8.49	8.35	7.66	10.88
Free Area (48 x 48)	%	38	53	55	53	53	38	52	54	52	55	53	52	48	68
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		668	691	739	689	772	869	963	998	941	1002	934	1097	-	-
Pressure Drop @ Maximum Intake Velocity (in. wg)		(48 x 48 unit; 15 min. duration)													
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		4015	5832	6452	5822	6531	5223	8012	8673	7857	8818	7930	9160	4979	-
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		6136	8018	8380	8102	8216	5782	8486	8386	8517	9240	8150	8183	-	13056

J = J Blade

K = K Blade

DC = Discharge



Greenheck Fan Corporation certifies that Models ESJ, ESK, EDJ and EDK 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 and water penetration ratings only.

The drainable blade (ESD) and dual drainable blade (EDD & EHM) louvers have outstanding resistance to water penetration. Optional 35 degree blades are available for maximum free area.



Model ESD:

Has a drain gutter located on every blade to capture rain water and channel it to louver jamb members and then down integral downsouts to the sloped sill where it drains away from the louver. Models ESD-435 and ESD-635 offer high free area. Models ESD-435X and ESD-635X are Florida Product Approved (see p.6).



Model EDD:

Similar to ESD, but has a second drain gutter to further catch water.

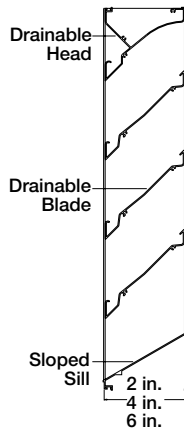


Model EHM:

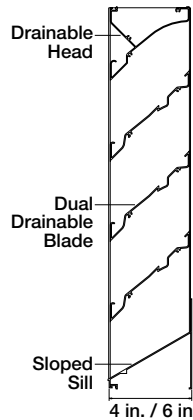
Offers a recessed mullion design for continuous blade appearance.



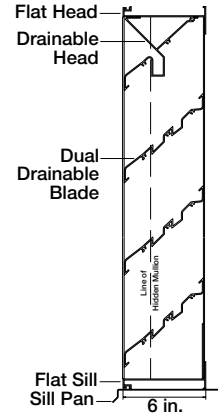
EHM Recessed Mullion



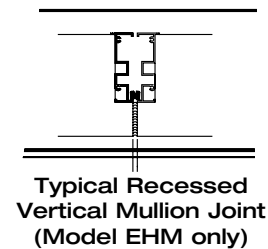
ESD



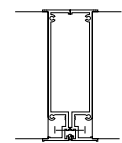
EDD



EHM



Typical Recessed Vertical Mullion Joint (Model EHM only)



Typical Vertical Visible Mullion Joint

STATIONARY DRAINABLE EXTRUDED LOUVERS FEATURES & PERFORMANCE		ESD-202	ESD-403	ESD-435	ESD-603	ESD-635	EDD-401	EDD-601	EHM-601
Blade	Style	D	D	D	D	D	DD	D	DD
Blade	Thickness (inches)	.063	.081	.081	.081	.081	.081	.081	.081
Frame	Thickness (inches)	.063	.081	.081	.081	.081	.081	.081	.081
Free Area (48 x 48)	Square Feet	6.02	8	8.98	8.36	9.41	8.22	5.58	7.91
Free Area (48 x 48)	%	38	50	56	52	59	51	54	49
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		1058	1007	1151	1027	1250	992	1201	1065
	(48 x 48 unit; 15 min. duration)								
Pressure Drop @ Maximum Intake Velocity (in. wg)		.141	.180	.213	.260	.234	.182	.240	.200
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		6369	8056	10336	10663	11762	9141	10305	8424
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		5963	8188	9285	8359	9956	8312	8399	6577

D = Drainable DD = Dual Drainable



Greenheck Fan Corporation certifies that Models ESD, EDD and EHM 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 and water penetration ratings only.

Sightproof

< SES, SEH, SED, SEV >

Sightproof style louvers can be applied as air intake or discharge louvers or can be applied as louvered equipment screens.



Model SES:
Most economical of all sightproof models.



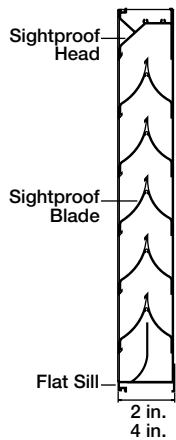
Model SEH:
Incorporates a drainable head member for increased protection against water penetration.



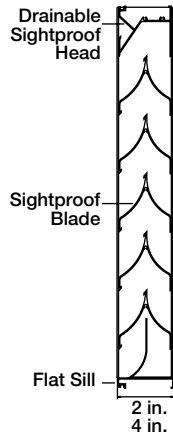
Model SED:
These drainable blade models are very effective in minimizing water penetration through wall openings.



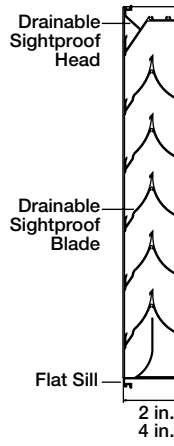
Model SED-501:
Offers 57% free area.



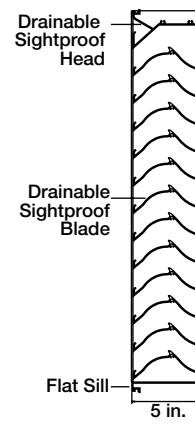
SES



SEH



SED



SED-501

SIGHTPROOF EXTRUDED LOUVERS FEATURES & PERFORMANCE		SES-202	SES-401	SEH-202	SEH-401	SED-202	SED-401	SED-501	SEV-401	SEV-501
Blade	Style	C	C	C	C	CD	CD	CD	C	C
Blade	Thickness (inches)	.063	.081	.063	.081	.063	.081	.081	.081	.081
Frame	Thickness (inches)	.063	.081	.063	.081	.063	.081	.081	.081	.081
Free Area (48 x 48)	Square Feet	3.75	5.33	3.73	5.16	3.42	5.16	9.11	5.33	9.11
Free Area (48 x 48)	%	24	33	23	32	21	32	57	33	57
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		516	718	600	765	903	747	1134	-	-
	(48 x 48 unit; 15 min. duration)									
Pressure Drop @ Maximum Intake Velocity (in. wg)		.115	.250	.140	.280	.240	.280	.415	-	-
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		1935	3827	2238	3947	3070	3984	10342	-	-
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		2083	2614	2163	2580	2325	2667	7387	-	-

C = Chevron

CD = Chevron Drainable



Greenheck Fan Corporation certifies that Models SES, SEH and SED 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 and water penetration ratings only.

Adjustable

< EAD, EADC, EAH >

08 91 00/GRE

BuyLine 6978

Adjustable blade louvers can be closed or opened as needed and were designed to protect air intake and exhaust openings in building exterior walls. Louver blades are center pivoted and can be operated manually or by electric/pneumatic actuators.



Model EAD:
Offers concealed blade linkage.



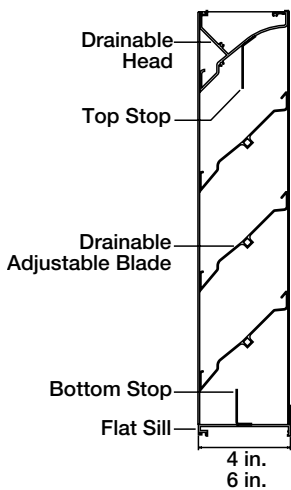
Model EADC:
Offers both concealed blade linkage and a concealed electric actuator.



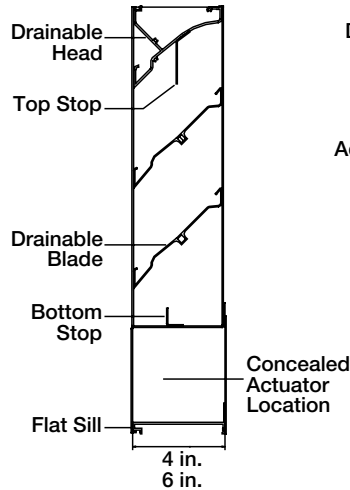
Models EAH-401:
Offers concealed blade linkage. Drainable head offers increased resistance to water penetration.



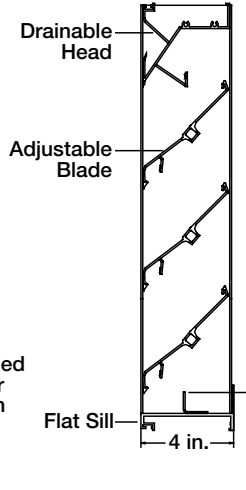
Model EAH-690:
Lends 70% free area when blades are in full 90 degree open position.



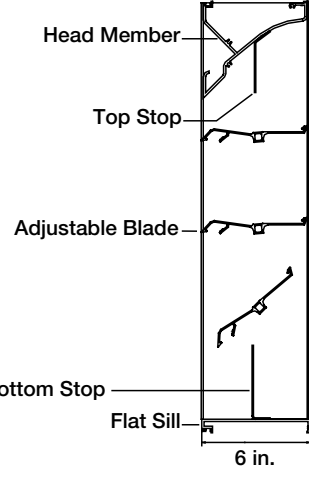
EAD



EADC



EAH-401



EAH-690

ADJUSTABLE EXTRUDED LOUVERS FEATURES & PERFORMANCE		EAD-401	EAD-601	EADC-401	EADC-601	EAH-401	EAH-690 45° BLADE	EAH-690 90° BLADE
Blade	Style	DA	DA	DA	DA	A	A	A
Blade	Thickness (inches)	.081	.081	.081	.081	.081	.081	.081
Frame	Thickness (inches)	.125	.125	.125	.125	.125	.125	.125
Free Area (48 x 48)	Square Feet	6.54	7.34	5.84	6.44	6.48	6.32	10.87
Free Area (48 x 48)	%	41	46	37	40	41	40	70
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		920	1007	920	1007	1023	1069	-
	(48 x 48 unit; 15 min. duration)							
Pressure Drop @ Maximum Intake Velocity (in. wg)		.185	.140	.185	.140	.170	.165	-
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		6017	7391	5373	6485	6629	6756	-
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		7521	7340	6716	6440	5638	5056	10055

DA = Drainable Adjustable

A = Adjustable



Greenheck Fan Corporation certifies that Models EAD, EAH-401 and EAH-690 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 and water penetration ratings only for models EAD and EAH-401. The AMCA Certified Ratings Seal applies to air performance only for model EAH-690 with blade angle at 90 degrees.

Combination

< ECD, EAC, EACA, EACN, EACC, GCE, GCI >

Combination louvers incorporate both stationary and adjustable blades, allowing the louver to be opened or closed as desired. The louver appearance does not change when the adjustable damper blade is closed as stationary blades maintain their position. The G series (gravity) louver has a movable blade which opens by air pressure when the adjacent fan is running and closes by gravity when the fan is shut down.



Model ECD:
Offers exposed on-blade linkage.



Model EAC:
Offers concealed linkage and center pivot operable blades.



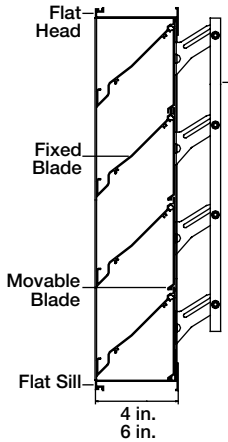
Model EACA:
Incorporates airfoil blades.



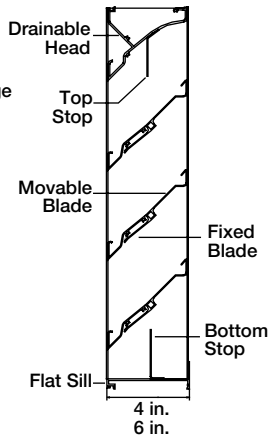
Model GCE:
Requires an exhaust fan (preferably ducted) for proper operation.



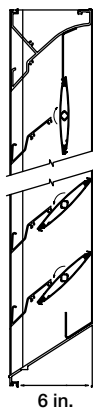
Model GCI:
Requires an intake fan (preferably ducted) for proper operation.



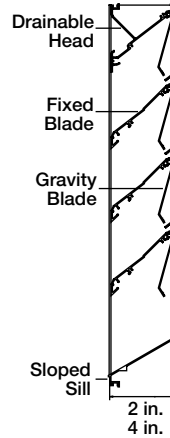
ECD



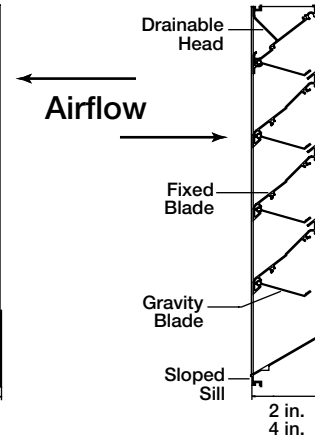
EAC



EACA



GCE



GCI

COMBINATION EXTRUDED LOUVER DAMPERS FEATURES & PERFORMANCE		ECD-401	ECD-601	EAC-401	EAC-601	EACA-601	EACN-601	EACC-401	EACC-601	GCE-202	GCE-402	GCI-202	GCI-402
Blade	Style	DA	DA	DA	DA	DAF	DA	DA	DA	JG	JG	JG	JG
Blade	Thickness (inches)	.081	.081	.081	.081	.081	.081	.081	.081	.063	.081	.063	.081
Frame	Thickness (inches)	.081	.081	.125	.125	.125	.125	.125	.125	.063	.081	.063	.081
Free Area (48 x 48)	Square Feet	7.6	7.32	6.34	7.41	7.68	7.18	5.59	6.2	4.96	6.36	5.26	6.39
Free Area (48 x 48)	%	48	46	40	46	48	45	35	39	31	40	33	40
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		805	1035	1192	1020	1221	1193	1192	1020	-	-	-	-
		(48 x 48 unit; 15 min. duration)											
Pressure Drop @ Maximum Intake Velocity (in. wg)		.115	.150	.170	.160	.170	.177	.170	.160	-	-	-	-
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		6118	7576	7557	7558	9377	8566	6663	6324	-	-	-	-
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		7372	7686	6050	7212	9585	6448	5333	6034	-	-	-	-

DA = Drainable Adjustable

DAF = Drainable Adjustable Airfoil

JG = J Gravity



Greenheck Fan Corporation certifies that Models ECD, EAC, EACA-601 and EACN-601 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 and water penetration ratings only.

< AFJ, AFA, AFS >

Acoustical fabricated models incorporate acoustically insulated blades to provide for sound attenuation to lower infiltrating or escaping noise. These louvers are independently tested for sound per applicable ASTM standards and also maintain AMCA licensing for Air Performance and Water Penetration data. Available in formed aluminum or steel material.



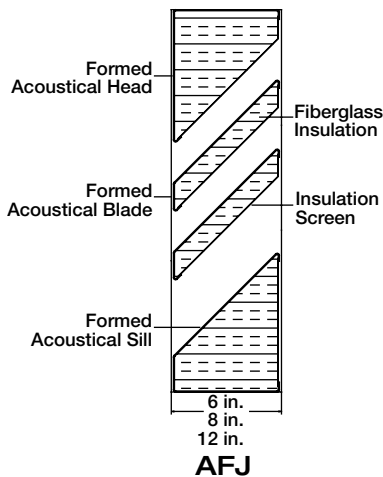
Model AFJ:
Most economical of all acoustical models. Model AFJ-601X is Florida Product Approved (see p.6).



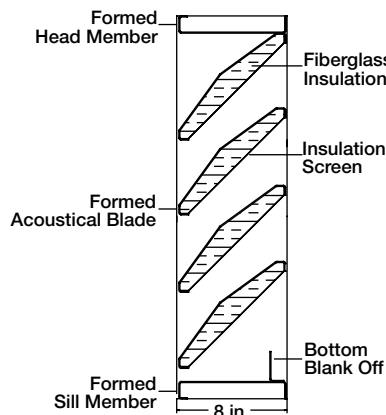
Model AFA:
Airfoil blade acoustical models offer the highest free area and lowest airflow resistance.



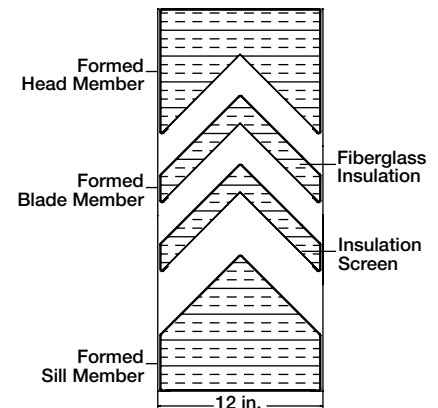
Model AFS:
Offers the best sound absorption performance.



AFJ



AFA



AFS



Greenheck Fan Corporation certifies that Models AFJ, AFA and AFS 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 and water penetration ratings only.

ACOUSTICAL FABRICATED LOUVERS FEATURES & PERFORMANCE		AFJ-601	AFJ-801	AFJ-120	AFA-801	AFS-120
Blade	Style	J	J	J	AF	SP
Blade	Thickness (inches)	.080	.080	.080	.080	.080
Frame	Thickness (inches)	.080	.080	.080	.080	.080
Free Area (48 x 48)	Square Feet	4.89	4.28	3.67	5.21	4.27
Free Area (48 x 48)	%	31	27	23	33	27
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		799	887	961	879	830
(48 x 48 unit; 15 min. duration)						
Pressure Drop @ Maximum Intake Velocity (in. wg)		.065	.074	.094	.050	.120
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		3907	3796	3527	4520	3544
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		6015	5209	4558	7537	3862

J = J Blade

AF = Airfoil

SP = Sightproof

Free Field Noise Reduction in Decibels

Model	Selected 1/3 Octave Bands Center Frequency HZ									
	63	125	250	500	1000	2000	4000	8000	STC	OITC
AFJ-601	10	11	7	11	14	19	15	19	8	5
AFJ-801	11	14	10	14	19	30	23	21	13	8
AFA-801	12	12	10	12	16	25	19	15	10	7
AFJ-120	14	15	11	16	24	39	30	25	15	10
AFS-120	7	13	11	18	28	35	34	32	17	10

Outdoor Indoor Transmission Class (OITC)

ASTM E1332 and ASTM E966 procedures are used to determine the OITC rating of building facades relative to ground or air transportation noise.

Sound Transmission Class (STC)

This is a numerical two-digit figure rating derived from a standardized performance test made in accordance with ASTM E90-90 and ASTM E413-87. The number is used in evaluating the effectiveness of an assembly in isolating or reducing airborne sound transmission.

Fabricated

< FSJ, FDS, FAJ, FAD >

These louver models are fabricated from galvanized steel and are normally selected when lowest cost is the primary concern. Fabricated models are available in both non-drainable and drainable blade designs. The adjustable louver models have operable blades that can be closed for tight air shut off, using manual or electric/pneumatic actuators. Optional 35 degree blades are available for maximum free area. Available in stainless steel.

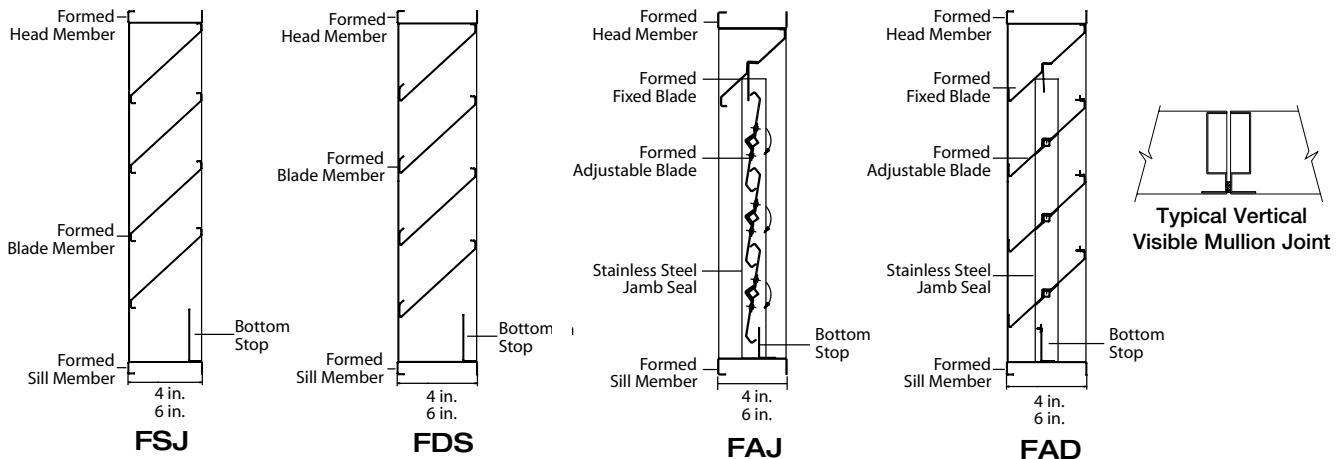


Models FSJ and FDS:

Offer the same mechanical purpose as their extruded aluminum counterparts at a lower cost.

Models FAJ and FAD:

Adjustable louvers offering the same mechanical purpose as their extruded aluminum counterpart at a lower cost.



FABRICATED LOUVERS FEATURES & PERFORMANCE		FSJ-402	FSJ-602	FDS-402	FDS-602	FAJ-402	FAJ-602	FAD-402	FAD-602	FAD-635
Blade	Style	J	J	D	D	A	A	DA	DA	DA
Blade	Thickness (inches)	20 Ga.	20 Ga.	20 Ga.	20 Ga.	16 Ga.	16 Ga.	16 Ga.	16 Ga.	16 Ga.
Frame	Thickness (inches)	18 Ga.	18 Ga.	18 Ga.	18 Ga.	16 Ga.	16 Ga.	16 Ga.	16 Ga.	16 Ga.
Free Area (48 x 48)	Square Feet	7.55	7.57	7.01	8.15	5.93	6.23	5.98	7.11	8.77
Free Area (48 x 48)	%	47	47	44	51	37	39	38	45	55
Free Area Intake Velocity @ Beginning Point of Water Penetration (Ft/Min)		839	896	1056	948	691	717	1086	980	959
(48 x 48 unit; 15 min. duration)										
Pressure Drop @ Maximum Intake Velocity (in. wg)		.110	.130	.225	.185	.063	.064	.120	.130	.100
Maximum Intake Volume Flow Rate 48 x 48 unit (cfm)		6335	6783	8788	7726	4098	4467	6494	6968	8410
Exhaust Volume Flow Rate @ 0.15 in. wg (cfm)		7399	7343	8436	8505	6321	6541	7475	7607	11094

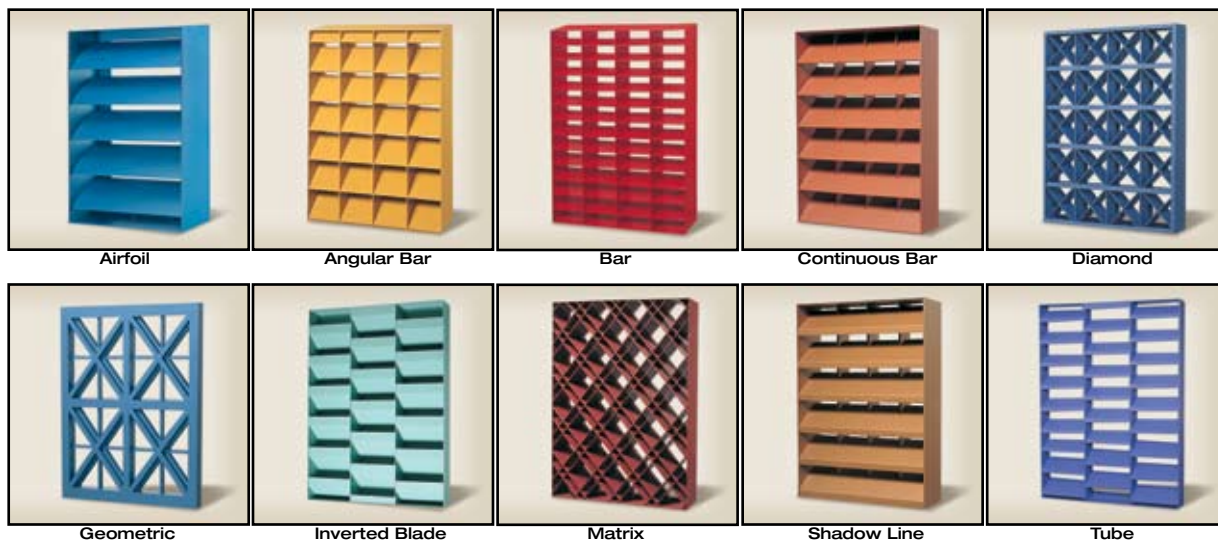
J = J Blade D = Drainable A = Adjustable DA = Drainable Adjustable



Greenheck Fan Corporation certifies that Models FSJ, FDS, FAJ and FAD 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 and water penetration ratings only.

Grilles & Sunshades

Ten standard grille models are available in an array of designs and configurations. As always, consult Greenheck for any custom design you envision.



As functional as they are aesthetically pleasing, sunshades provide energy saving sun protection with curb appeal. Virtually any configurations are possible.



Penthouses & Equipment Screens

Model PEV-400 is a gravity ventilator comprised of three sides of standard stationary non-drainable louver Model ESJ-401, along with one side of 1/8-in. thick plate glass that can be broken with the pressure of a fire hose. A fire smoke damper, model SMD-202, is located in the throat of the curb and wired into the fire control panel. The unit is shop-assembled and shipped complete. Greenheck penthouse models WIH and WRH offer clean horizontal lines, mitered corners, all aluminum construction, removable hoods, and weather resistant blades. Custom louvered penthouses are also available to meet your specifications.



PEV-400



WIH/WRH



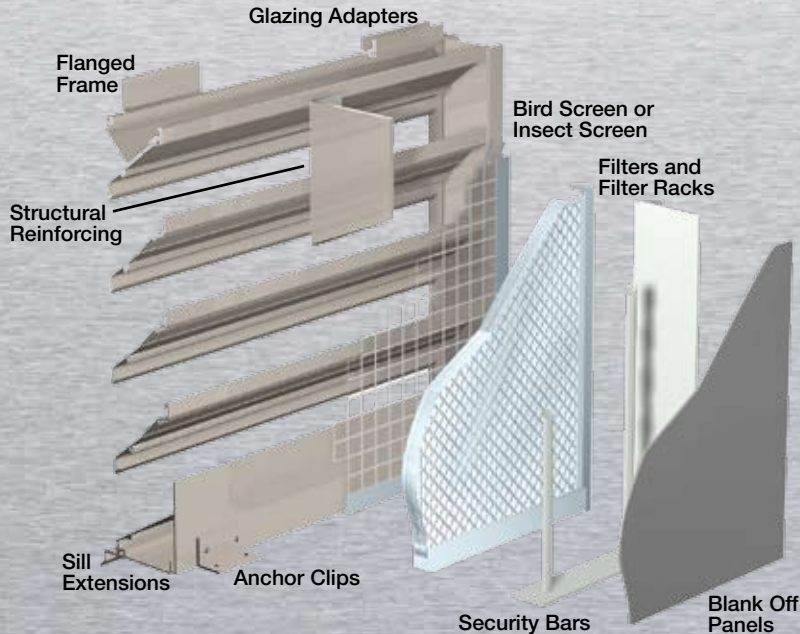
EES-T200V

For screen applications, standardized model EES-T200V is a vertical equipment screen offering extruded aluminum "T" style blades. As always, custom configurations are available.

Everything You Need

We have a full line of accessories, so whether your project necessitates security bars or filter racks, we have what you need. Do you have a custom color in mind? In addition to our complete line of standard colors (24 to be exact), our custom color matching capabilities are endless. An extensive line of standard finishes, including mica, is also available.

We can complete your project just as you envision it.



Building Value In Air

Greenheck delivers value to specifying engineers by helping them solve virtually any air quality challenges their clients face with a comprehensive selection of top quality, innovative air-related equipment. We offer extra value to contractors by providing easy-to-install, competitively priced, reliable products that arrive on time. And building owners and occupants value the energy efficiency, low maintenance and quiet dependable operation they experience long after the construction project ends.

Our Warranty

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Greenheck prove defective during this period, they should be returned to the nearest authorized motor service station. Greenheck will not be responsible for any removal or installation costs.

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



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