

Miami-Dade Approved Drainable Blade Louver

Application and Design

ESD-635DE is a **Florida Product Approved and Miami-Dade Approved** stationary drainable blade extruded aluminum louver designed to protect air intake and exhaust openings in building exterior walls. ESD-635DE is tested in accordance with AMCA 500-L Air Performance and Water Penetration. ESD-635DE is tested in accordance with AMCA 540 Test Method for Louvers Impacted by Wind Borne Debris (Basic Protection, Missile Level D). **ESD-635DE is licensed to bear the AMCA seal allowing design professionals to select and apply with confidence.** ESD-635DE is tested and approved per the following Florida test protocols: TAS 201 (Large Missile Impact), TAS 202 (Uniform Static Air Pressure) and TAS 203 (Cyclic Wind Loading). Per Miami-Dade ESD-635DE may be installed in locations where the space behind the louver is designed to accept water penetration and houses water resistant/water proof equipment, components or supplies.

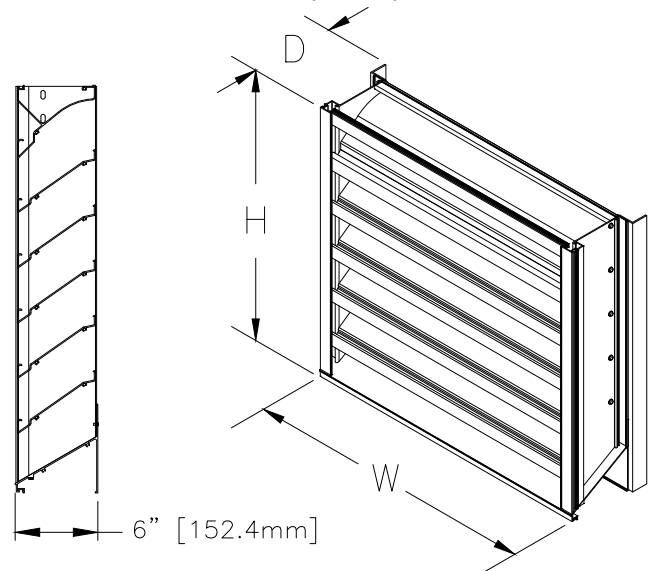
Standard Construction

- Frame** Heavy gauge extruded 6063T5 aluminum, 6 in. x 0.081 in. nominal wall thickness
- Blades** Drainable design, heavy gauge extruded aluminum, 0.081 in. nominal wall thickness positioned at 37° angles on approximately 4 in. centers
- Construction** Mechanically fastened
- Birdscreen** 3/4 in. x 0.051 flattened expanded aluminum in removable frame, inside mount (rear), mill finish only
- Finish** Mill
- Minimum Rough Opening Size** 12 in. W x 12 in. H
- Maximum Rough Opening Size**
- Channel Frame** 48.75 in. W x 48.50 in. H
- Maximum Rough Opening Size**
- Flange/Sleeve** 48.50 in. W x 48.50 in. H

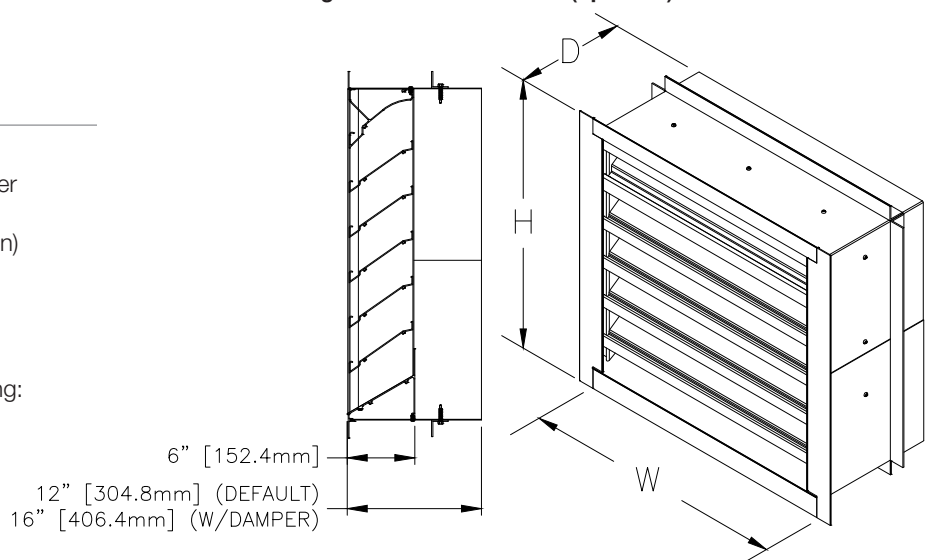
Options (at additional cost)

- Factory attached VCD-40 control damper
- A variety of bird and insect screens
- Flange Frame (Channel Frame Installation)
- Mounting sleeve
- Blank off panel
- Filter rack
- Security bars
- A variety of architectural finishes including:
 - Clear anodize
 - Integral color anodize
 - Baked enamel
 - Kynar

Channel Frame Installation (default)



Flange/Sleeve Installation (optional)



PERFORMANCE DATA

ESD-635DE

Florida Product Approval No: FL19675
 Miami-Dade NOA No.: 15-1109.04, EXP. 2/4/2021
 Maximum Wind-load: +/-150 PSF

Free Area Chart

Louver Height Inches	Louver Width in Inches						
	12	18	24	30	36	42	48
12	0.19	0.32	0.44	0.57	0.69	0.82	0.94
18	0.48	0.80	1.11	1.42	1.74	2.05	2.36
24	0.77	1.27	1.77	2.27	2.77	3.27	3.76
30	1.05	1.73	2.41	3.09	3.77	4.45	5.13
36	1.35	2.22	3.09	3.97	4.84	5.71	6.59
42	1.62	2.67	3.71	4.76	5.81	6.86	7.91
48	1.92	3.17	4.42	5.67	6.91	8.16	9.41



Greenheck Fan Corporation certifies that the ESD-635DE louvers shown herein 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.



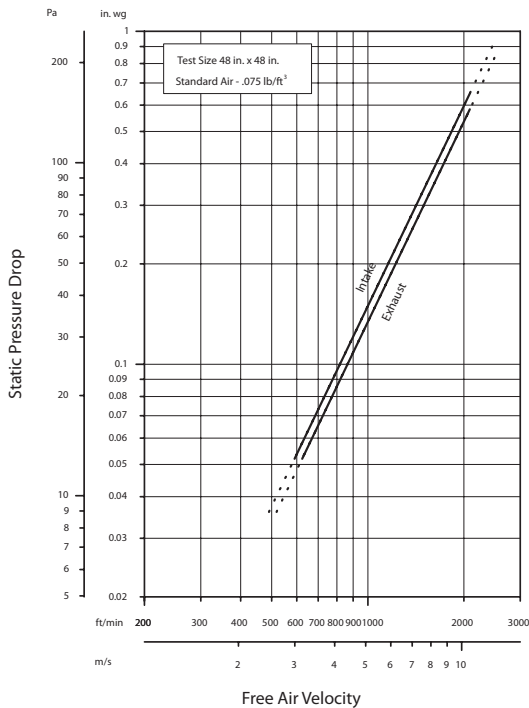
IMPACT RESISTANT LOUVER
Basic Protection

See www.AMCA.org for all certified or listed products

This label does not signify AMCA airflow performance certification.

Greenheck Fan Corporation certifies that the ESD-635DE louvers shown herein are 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. The AMCA Listing Label applies to Wind Borne Debris Impact Resistant Louvers.

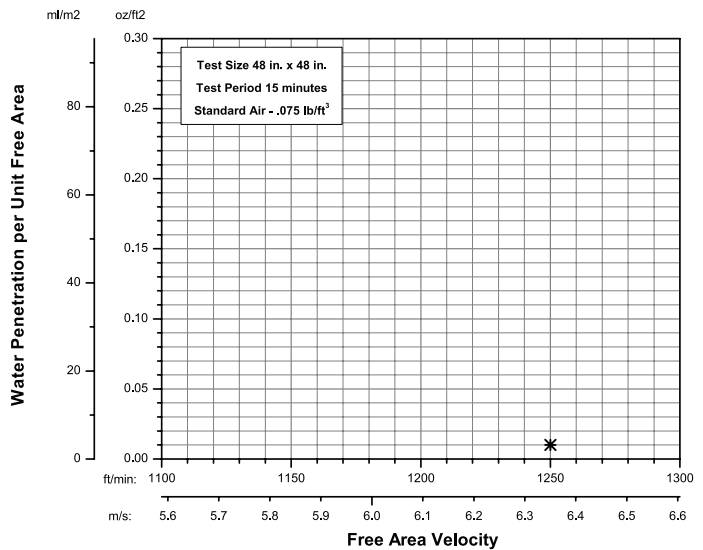
Airflow Resistance (Standard Air - .075 lb/ft³)



Model ESD-635DE resistance to airflow (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information. (Test Figure 5.5-6.5)

Water Penetration (Standard Air - .075 lb/ft³)

Test size 48 in. x 48 in. Test duration of 15 min.



The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The beginning point of water penetration is defined as that velocity where the water penetration curve projects through .01 oz. of water (penetration) per sq. ft. of louver free area. ***The beginning point of water penetration for Model ESD-635DE is above 1250 fpm free area velocity.** These performance ratings do not guarantee a louver to be weatherproof or stormproof and should be used in combination with other factors including good engineering judgement in selecting louvers.

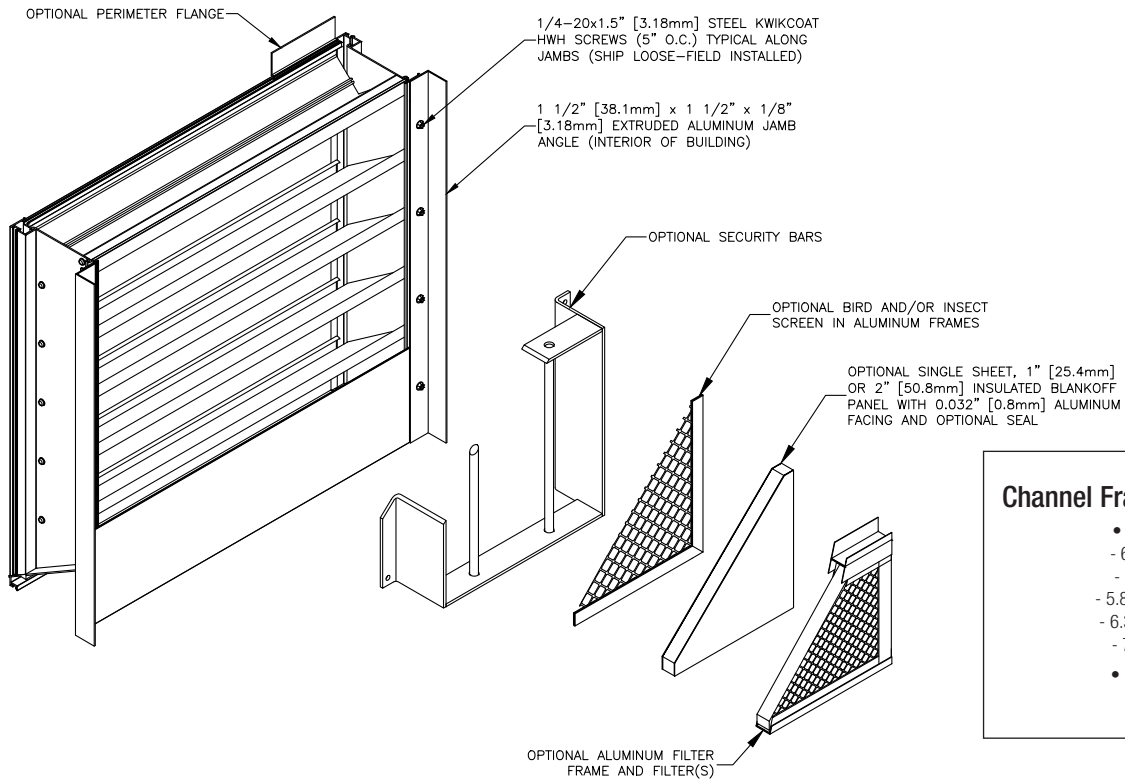


Note: AMCA licensed performance data shown herein pertains only to the louver and does not include effects of the factory attached VCD-40 damper.

OPTION DRAWINGS

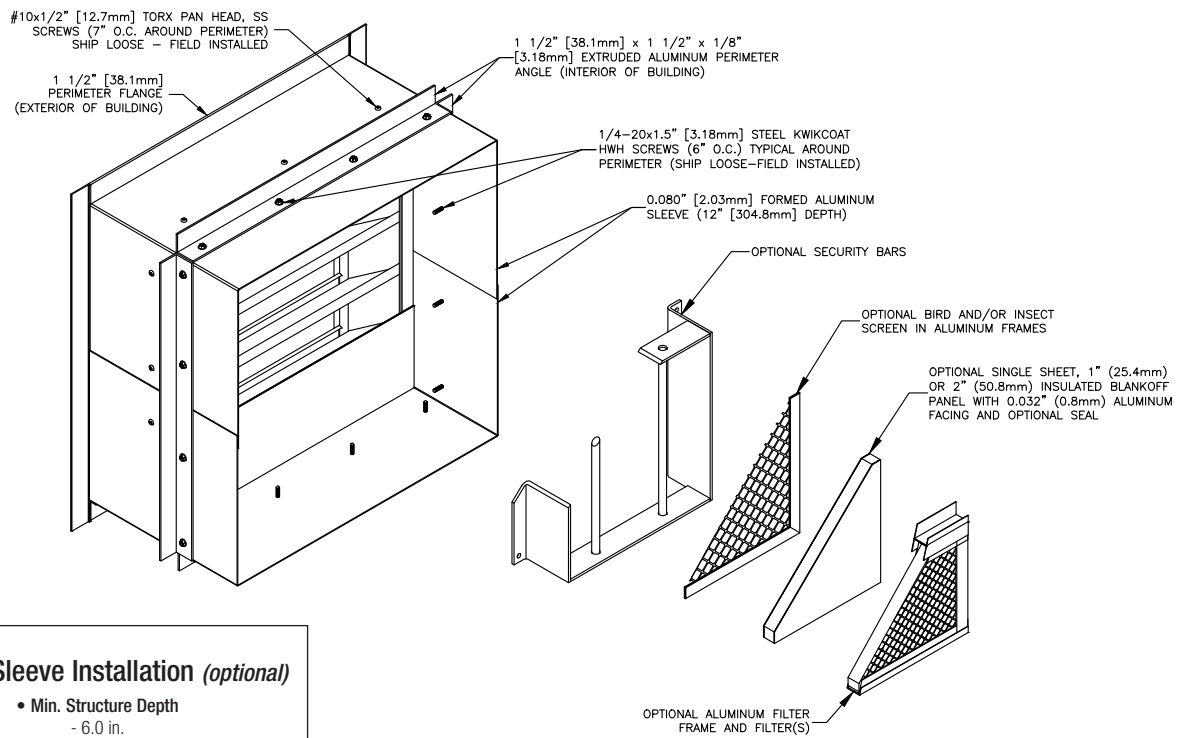
ESD-635DE

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 Miami-Dade NOA No.: 15-1109.04, EXP. 2/4/2021
 Maximum Wind-load: +/-150 PSF



Channel Frame Installation (default)

- **Min. Structure Depth**
 - 6.8 in. (wood substrate)
 - 5.9 in. (steel substrate)
 - 5.8 in. (aluminum substrate)
 - 6.3 in. (concrete substrate)
 - 7.3 in. (CMU substrate)
- **Max. Structure Depth**
 - unlimited



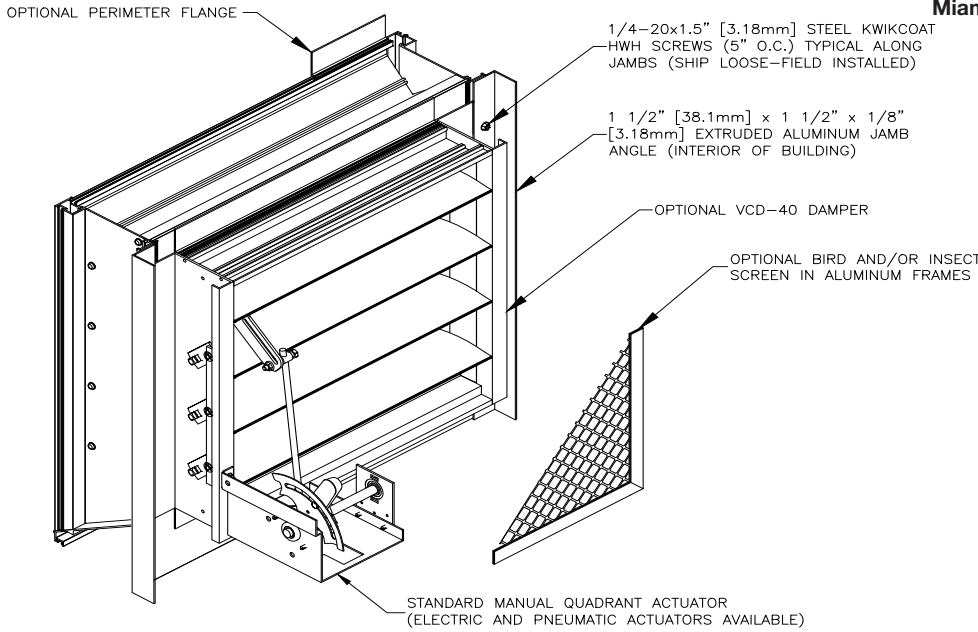
Flange/Sleeve Installation (optional)

- **Min. Structure Depth**
 - 6.0 in.
- **Max. Structure Depth**
 - 10.5 in. (12 in. sleeve)
 - 14.5 in. (16 in. sleeve)

OPTION DRAWINGS

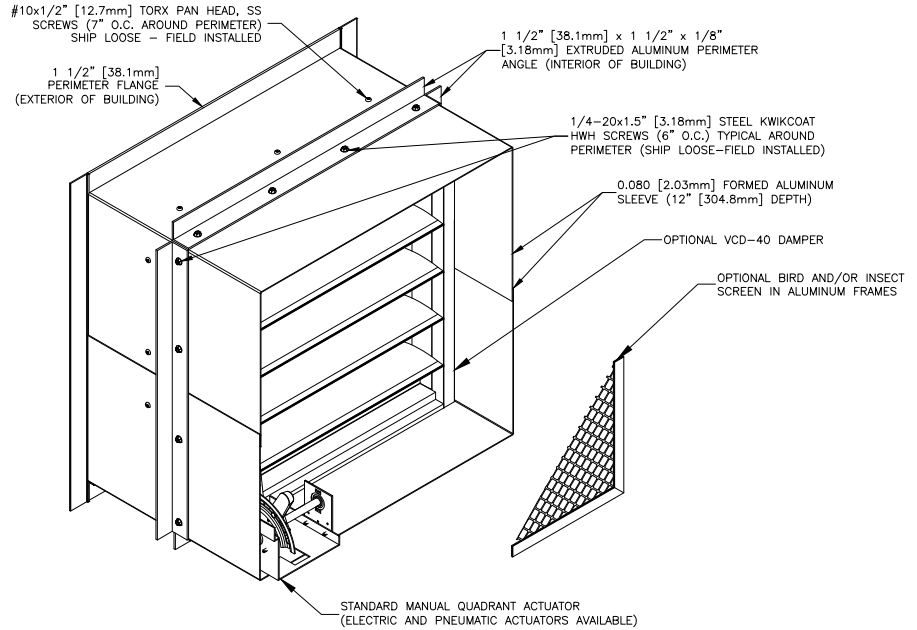
ESD-635DE with VCD-40

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 Maximum Wind-load: +/-150 PSF



Channel Frame Installation (default)

- **Min. Structure Depth**
 - 6.8 in. (wood substrate)
 - 5.9 in (steel substrate)
 - 5.8 in. (aluminum substrate)
 - 6.3 in. (concrete substrate)
 - 7.3 in. (CMU substrate)
- **Max. Structure Depth**
 - unlimited



Flange/Sleeve Installation (optional)

- **Min. Structure Depth**
 - 6.0 in.
- **Max. Structure Depth**
 - 10.5 in. (12 in. sleeve)
 - 14.5 in. (16 in. sleeve)

Building Condition/Substrate Limitations

Channel Installation

- All steel substrate should be min. 16 Ga. FY= 33 KSI
- All concrete substrate shall be min. 2000 PSI
- All concrete masonry shall be ASTM C90, Type II, grout-filled
- All wood substrate shall be G= 0.42 density or better
- All aluminum substrate shall be min 0.125 in. thick FY=16 KSI

Flange/Sleeve Installation

- Any substrate acceptable that is capable of withstanding imposed loads.

For additional information reference the Installation, Operation and Maintenance (IOM) manuals.



ESD-635DE
 May 2016

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