

Channel Installation with VCD-40 Damper

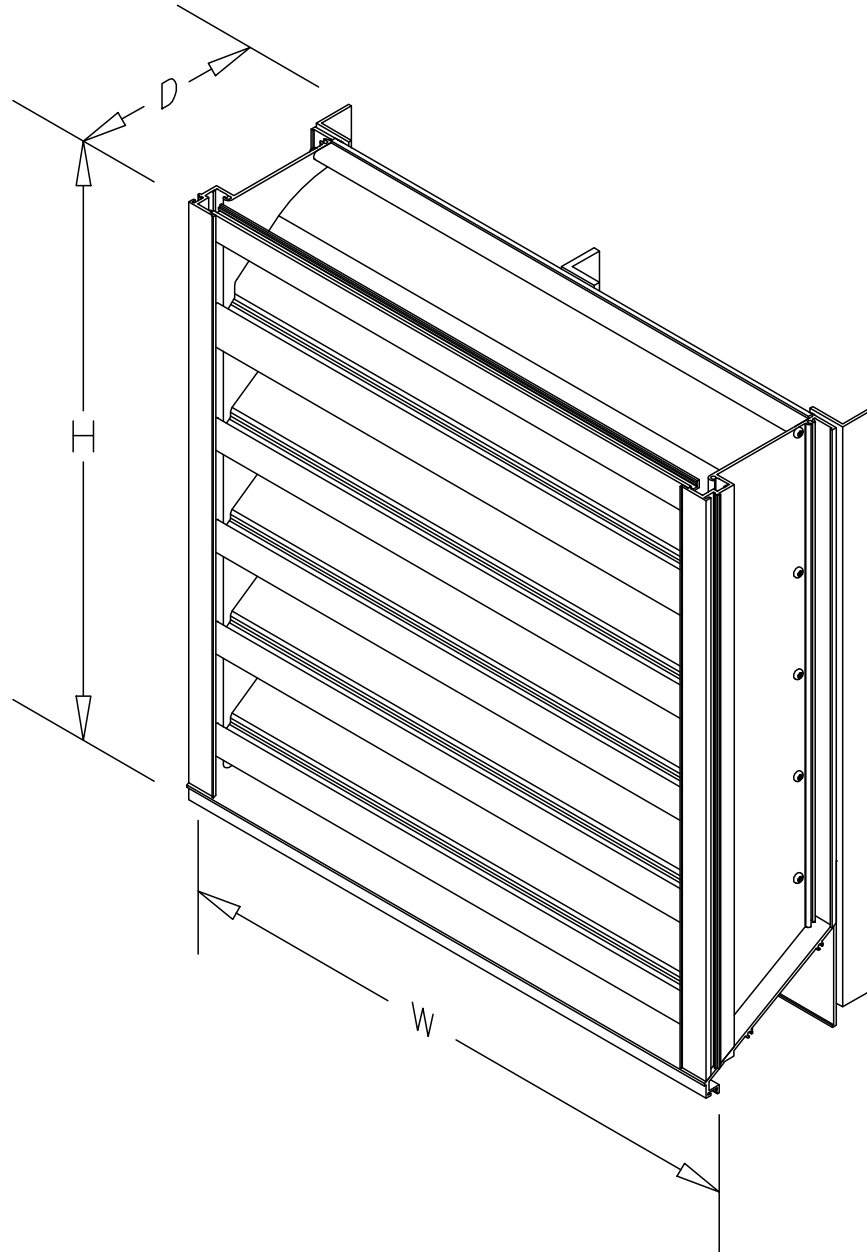
Florida Product Approval No: FL10088

Miami-Dade NOA No.: 10-0921.09

Maximum Wind-load: 150 PSF

## Installation, Operation, and Maintenance Instructions

This manual is the property of the owner, and is required for future maintenance.  
Please leave it with the owner when the job is complete.



### SAFETY WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

# Installation Instructions

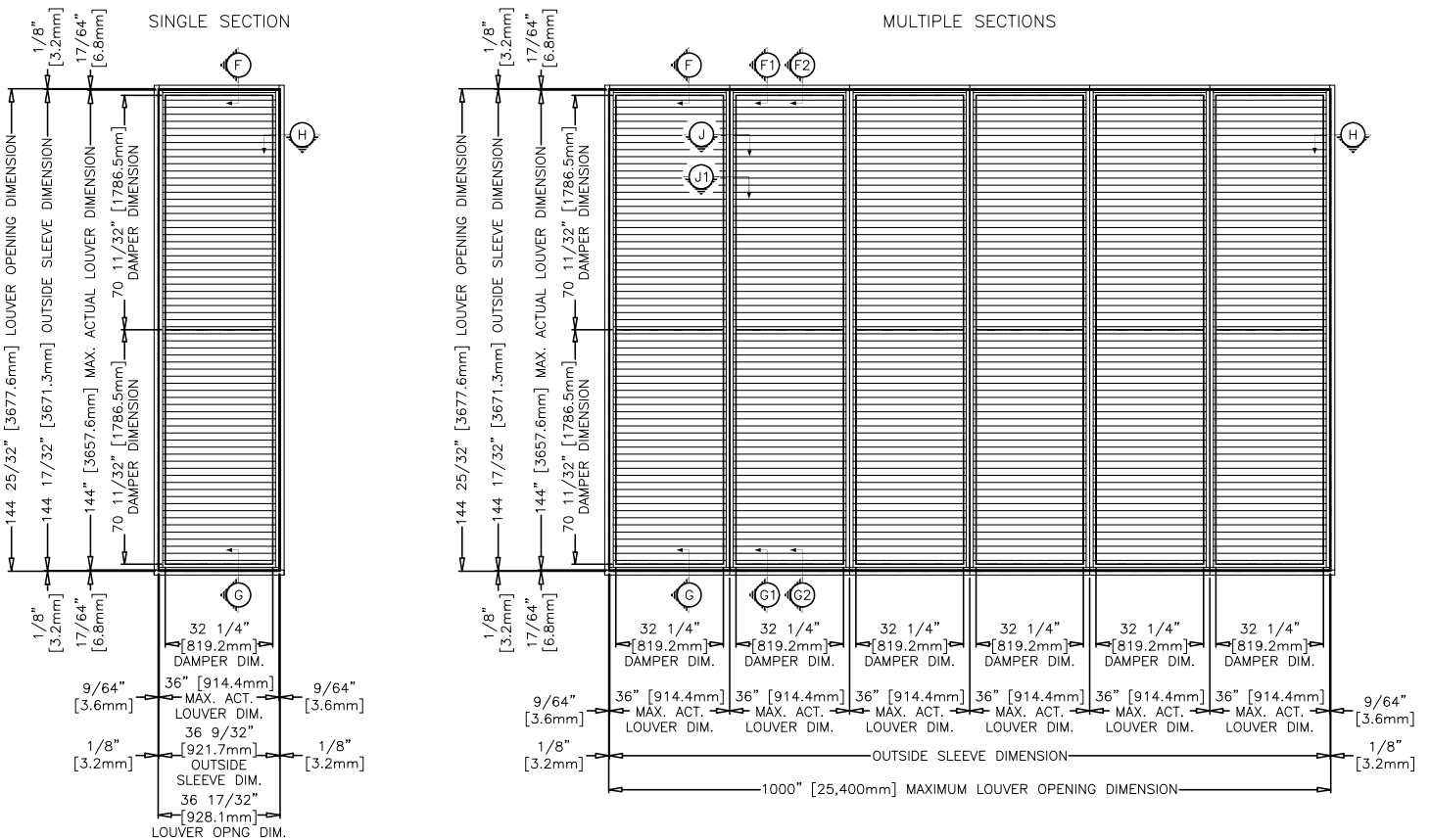
# ESD-635D

Channel Installation  
with VCD-40 Damper

Florida Product Approval No: FL10088  
Miami-Dade NOA No.: 10-0921.09  
Maximum Wind-load: 150 PSF

## Maximum Size and Installation Information

Model ESD-635D with VCD-40 is a Miami-Dade Qualified and Florida Product Approved louver and must be installed in accordance with the installation instructions shown herein. Model ESD-635D with VCD-40 is qualified for installation within concrete/masonry, steel stud, structural steel or wood framed building conditions. Model ESD-635D with VCD-40 is structurally calculated to withstand positive and negative wind-loads up to 150 PSF. The maximum single section rough opening width is 36.75 in. The maximum single section rough opening height is 144.50 in. While the maximum rough opening height is limited to 144.50 in., the rough opening width is limited to 1,000 in. as multiple sections may be installed side by side in accordance with installation instructions.



**Minimum Rough  
Opening Size**  
12 in. W x 15.25 in. H

**Maximum Single Section  
Rough Opening Size**  
36.75 in. W x 144.50 in. H

## Building Condition/Substrate Limitations

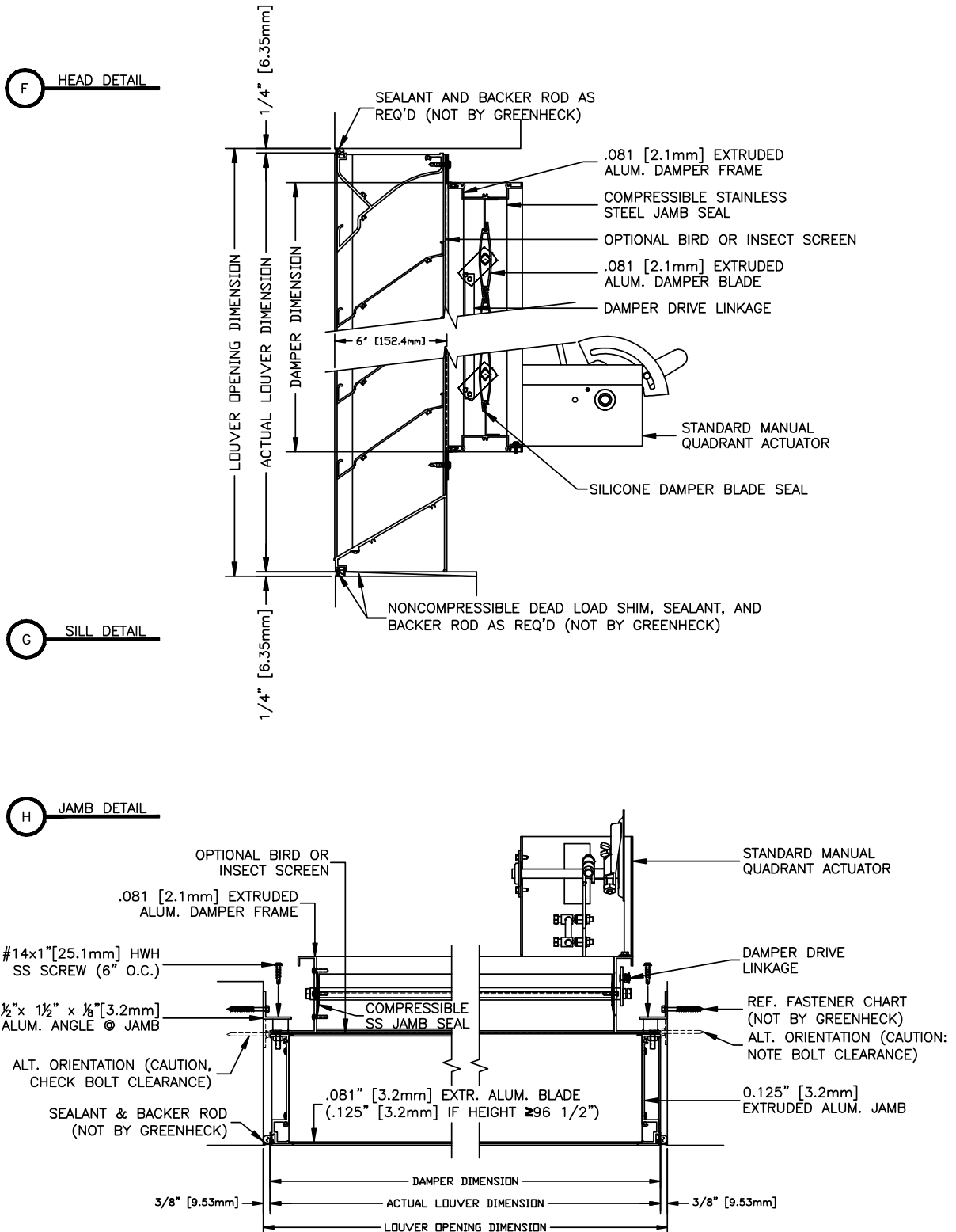
- All metal stud substrate should be min. 10 Ga. FY= 36 KSI
- All structural steel substrate shall be min. 0.125 in. thick FY= 36 KSI
- All concrete substrate shall be min. 4000 PSI (2000 PSI allowed with SDR)
- Concrete masonry shall be ASTM C90, Type II, 2000 PSI, grout-filled

# Installation Instructions

# ESD-635D

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Single Section

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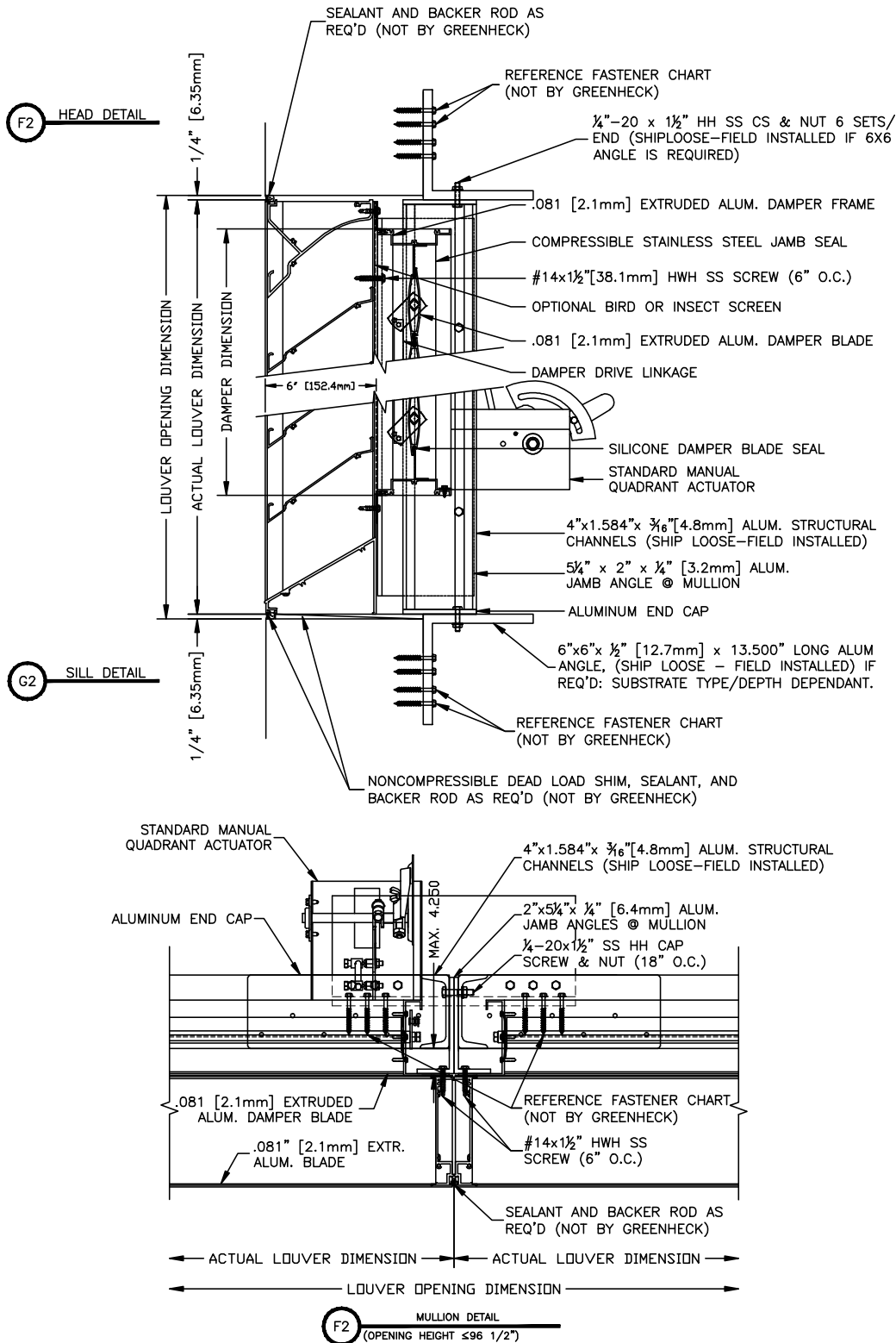


# Installation Instructions

# ESD-635D

Channel Installation  
with VCD-40 Damper  
Multiple Sections  
Height ≤ 96 1/2

Florida Product Approval No: FL10088  
Miami-Dade NOA No.: 10-0921.09  
Maximum Wind-load: 150 PSF

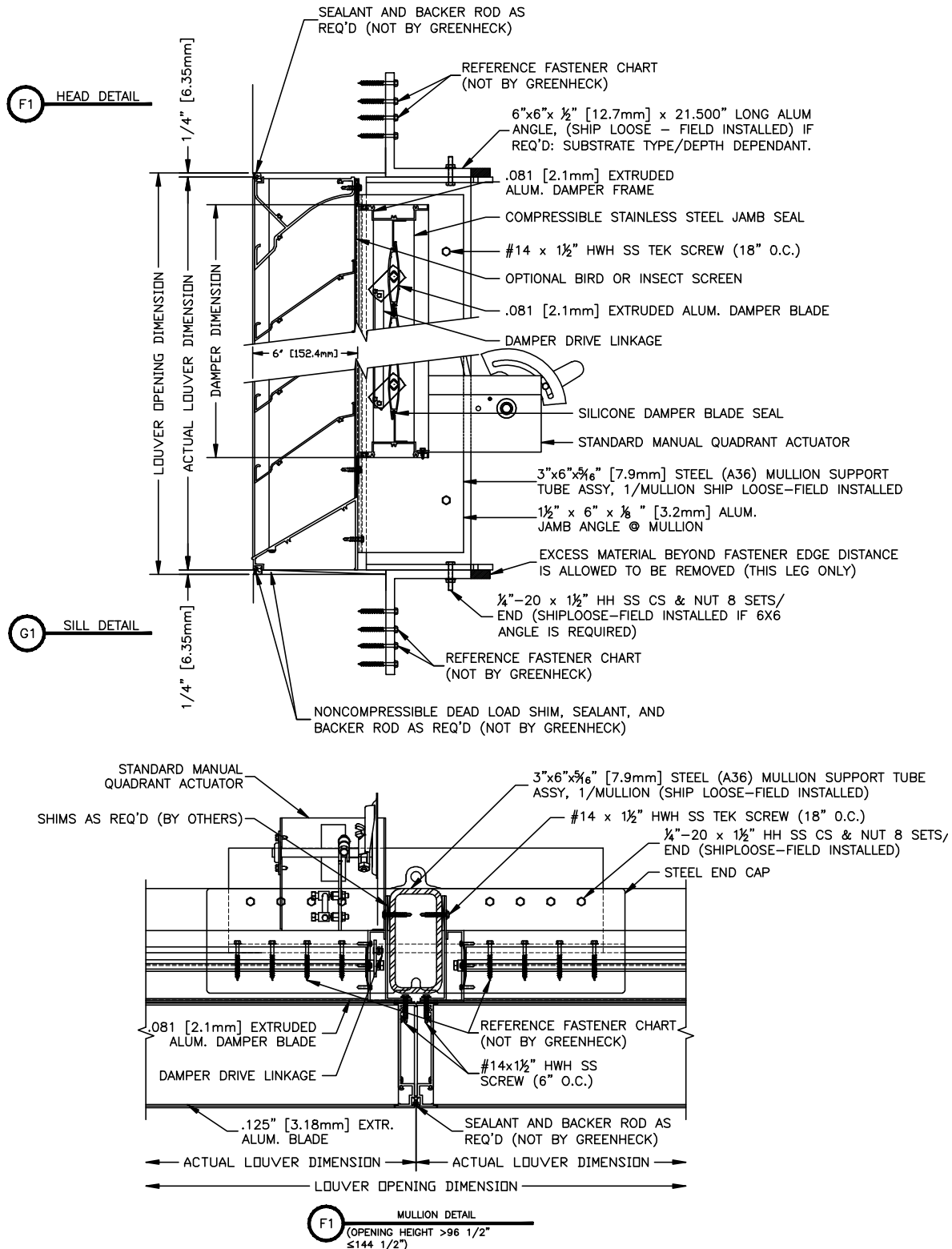


# Installation Instructions

# ESD-635D

Channel Installation  
with VCD-40 Damper  
Multiple Sections  
Height > 96 1/2" ≤ 144 1/2"

Florida Product Approval No: FL10088  
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Maximum Wind-load: 150 PSF



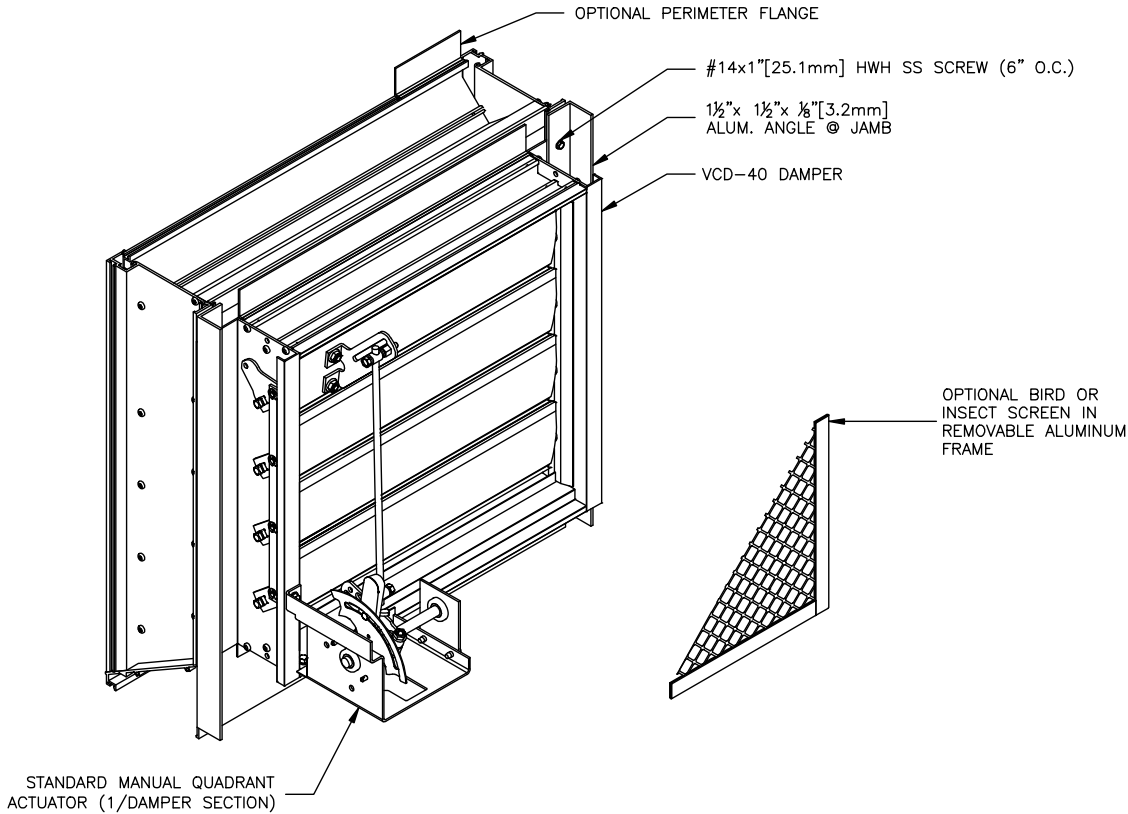
# Installation Instructions

# ESD-635D

Channel Installation  
with VCD-40 Damper  
Single Section

Florida Product Approval No: FL10088  
Miami-Dade NOA No.: 10-0921.09  
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Structure Depth	
<b>CMU / Concrete Substrate</b>	<b>Steel Stud / Structural Steel Substrate</b>
• Min. structure depth 6.866 in.	• Min. structure depth 5.866 in.
• Max. structure depth infinite	• Max. structure depth infinite



FASTENER SCHEDULE (FIELD INSTALLED - NOT BY GREENHECK)										
CONCRETE	CMU	STEEL	MIN.	FASTENER TYPE	DIAMETER	# RQD.	CENTERS	EDGE	EMBED.*	
JAMB PERIMETER ANGLE FASTENER										
X			2KSI	SCOTS TAPCON / TAPCON	1/4	VARIES	4.750	1.500	1.750	
X			4KSI	SCOTS TAPCON / TAPCON	1/4	VARIES	6.000	1.500	1.750	
	X		1.5KSI	SCOTS TAPCON / TAPCON	1/4	VARIES	3.000	1.500	1.750	
		X	65KSI Fy	BOLT/NUT OR TAPPING SCREW	1/4	VARIES	6.000	0.500	0.125	
MULLION END PLATE FASTENER, HEIGHT <=144										
			2KSI	SCOTS TAPCON / TAPCON	1/4	9/END	2.000	1.500	1.625	
X			4KSI	SCOTS TAPCON / TAPCON	1/4	8/END	2.000	1.500	1.625	
		X	65KSI Fy	BOLT/NUT OR TAPPING SCREW	1/4	8/END	1.000	0.500	0.125	
MULLION ANGLE MOUNT FASTENER, HEIGHT <=144										
X			2KSI	SCOTS TAPCON / TAPCON	1/4	32/ANG.	2.000	1.500	1.750	3.375
X			4KSI	SCOTS TAPCON / TAPCON	1/4	27/ANG.	2.000	1.500	1.750	3.375
	X		1.5KSI	SCOTS TAPCON / TAPCON	1/4	32/ANG.	2.000	1.500	1.750	3.375
		X	65KSI Fy	BOLT/NUT OR TAPPING SCREW	1/4	16/ANG.	1.000	0.500	0.125	3.000
		X	65KSI Fy	BOLT/NUT OR TAPPING SCREW	1/4	11/ANG.	1.000	0.500	0.188	3.000
		X	65KSI Fy	BOLT/NUT OR TAPPING SCREW	1/4	16/ANG.	1.000	0.500	0.188	3.766
MULLION END PLATE FASTENER, HEIGHT <=96										
X			2KSI	SCOTS TAPCON / TAPCON	1/4	6/CAP	2.000	1.500	1.750	
X			4KSI	SCOTS TAPCON / TAPCON	1/4	6/CAP	2.000	1.500	1.750	
		X	65KSI Fy	BOLT/NUT OR TAPPING SCREW	1/4	3/CAP	1.000	0.500	0.125	
MULLION ANGLE MOUNT FASTENER, HEIGHT <=96										
X			2KSI	SCOTS TAPCON / TAPCON	1/4	11/ANG.	2.000	1.500	1.750	3.375
X			4KSI	SCOTS TAPCON / TAPCON	1/4	9/ANG.	2.000	1.500	1.750	3.375
	X		1.5KSI	SCOTS TAPCON / TAPCON	1/4	11/ANG.	2.000	1.500	1.750	3.375
		X	65KSI Fy	BOLT/NUT OR TAPPING SCREW	1/4	7/ANG.	1.000	0.500	0.125	3.766
		X	65KSI Fy	BOLT/NUT OR TAPPING SCREW	1/4	6/ANG.	1.000	0.500	0.125	3.000

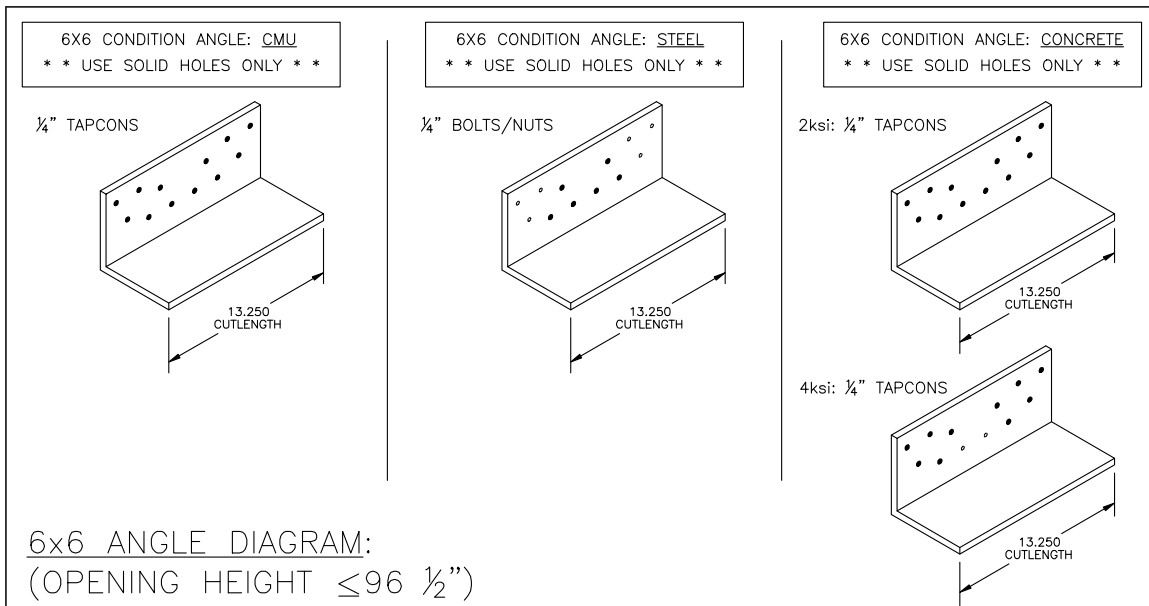
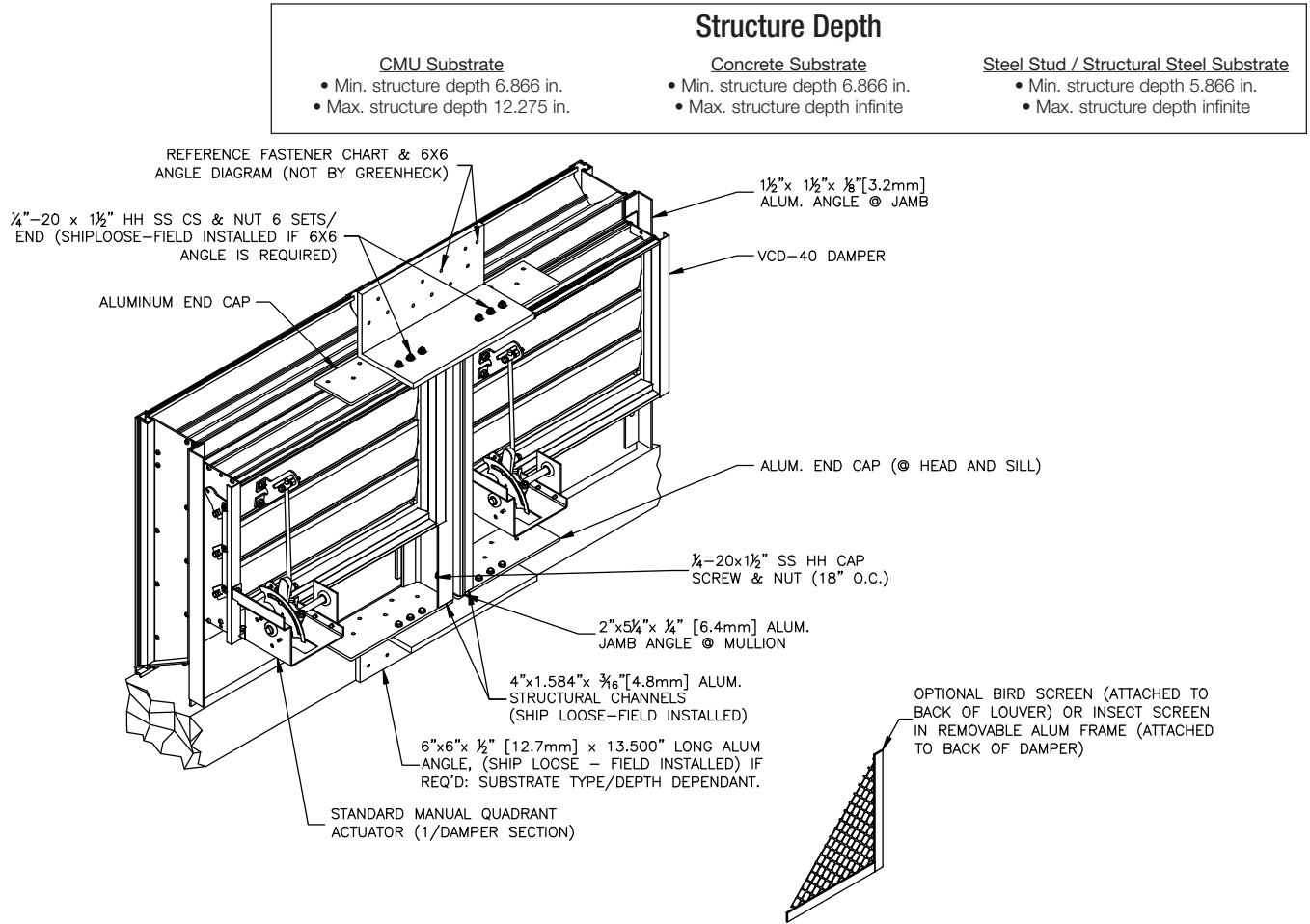
\* EMBEDMENT DEPTH IS EQUAL TO OVERALL FASTENER LENGTH FOR CONCRETE/CMU FASTENERS. IF SHIMS ARE USED, FASTENER LENGTH MUST BE INCREASED BY THICKNESS OF SHIMS.  
• REFERENCE SUBSTRATE DEPTH CHART TO DETERMINE IF MULLION ANGLE IS REQUIRED.

# Installation Instructions

# ESD-635D

Channel Installation  
with VCD-40 Damper  
Multiple Sections  
Height  $\leq 96 \frac{1}{2}$

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Maximum Wind-load: 150 PSF



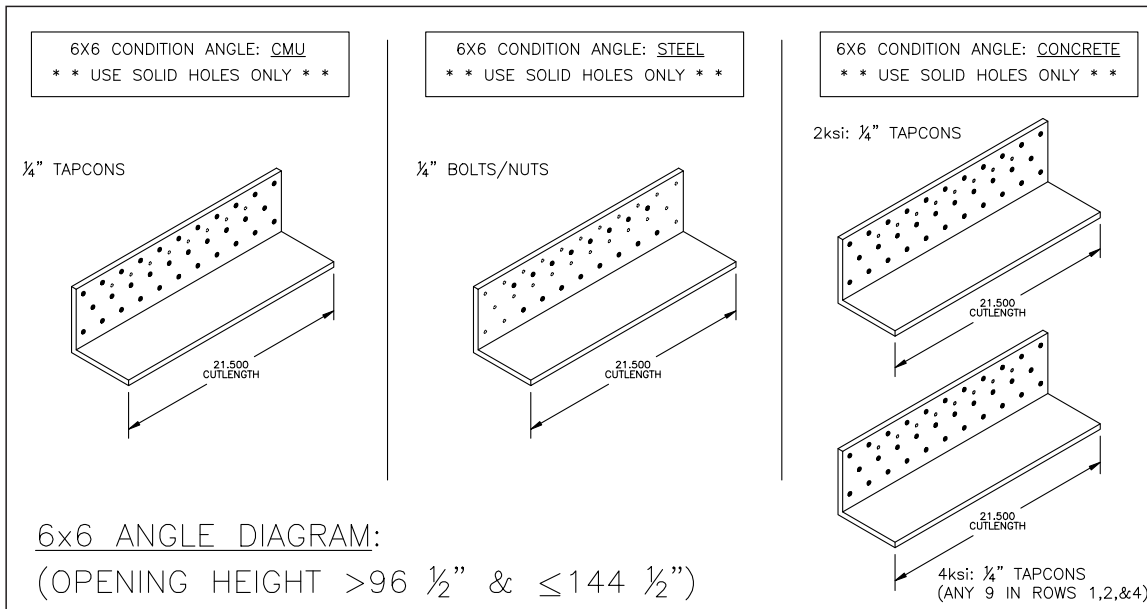
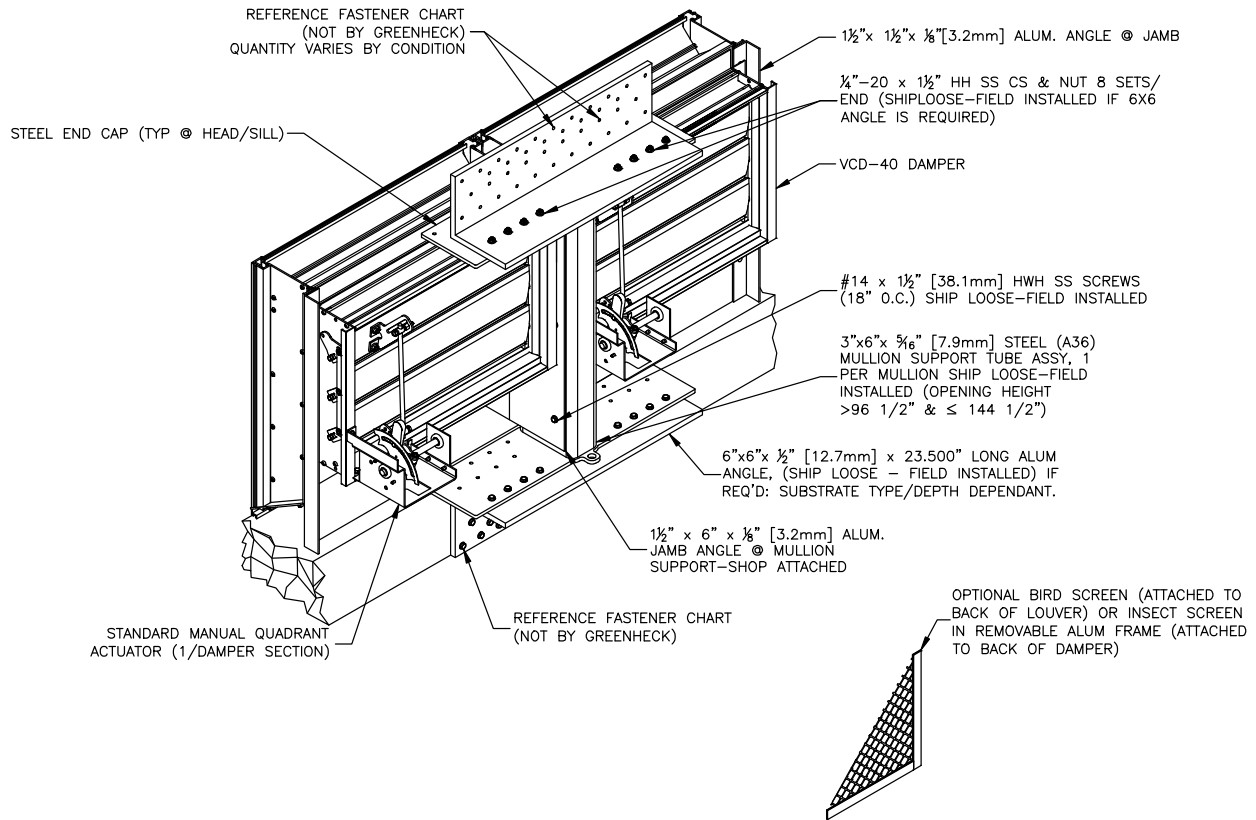
# Installation Instructions

# ESD-635D

Channel Installation  
with VCD-40 Damper  
Multiple Sections  
Height <math>96 \frac{1}{2}</math> ≤ <math>144 \frac{1}{2}</math>

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Maximum Wind-load: 150 PSF

Structure Depth		
<b>CMU Substrate</b>	<b>Concrete Substrate</b>	<b>Steel Stud / Structural Steel Substrate</b>
<ul style="list-style-type: none"> <li>• Min. structure depth 6.866 in.</li> <li>• Max. structure depth 15.000 in.</li> </ul>	<ul style="list-style-type: none"> <li>• Min. structure depth 6.866 in.</li> <li>• Max. structure depth infinite</li> </ul>	<ul style="list-style-type: none"> <li>• Min. structure depth 5.866 in.</li> <li>• Max. structure depth infinite</li> </ul>



ESD-635D Channel Installation with Damper IOM  
June 2011, Rev. 1  
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