

**MODEL CEL-D-4 ADJUSTABLE COMBINATION LOUVER/DAMPER 4"**

**STANDARD CONSTRUCTION:**

**FRAME:**

.081" Extruded Aluminum 4.19" deep.

**ADJUSTABLE BLADE:**

.061" Extruded Aluminum

**FIXED BLADE:**

.081 Extruded Aluminum Positioned on a 39° angle on approximately 4.25" centers

**LINKAGE:**

Exposed (In-air-stream)

**BIRDSCREEN:**

.75" X .051 Flattened Aluminum in Removable Frame.  
Screen is mounted on inside (rear) as looking from exterior of building.

**OPERATOR:**

Louvers without actuators will be supplied with Locking Quadrants.

**FINISH:**

Mill Aluminum (Std.)

**MINIMUM SIZE:**

12"w x 12"h

**MAXIMUM SIZE:**

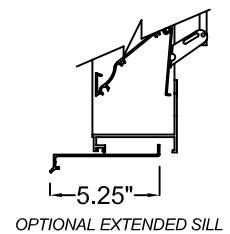
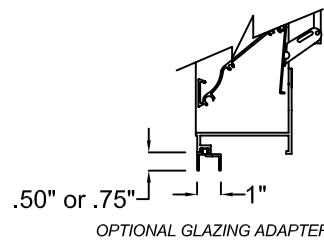
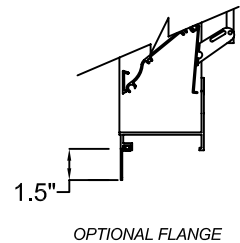
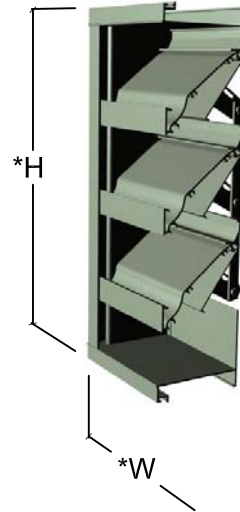
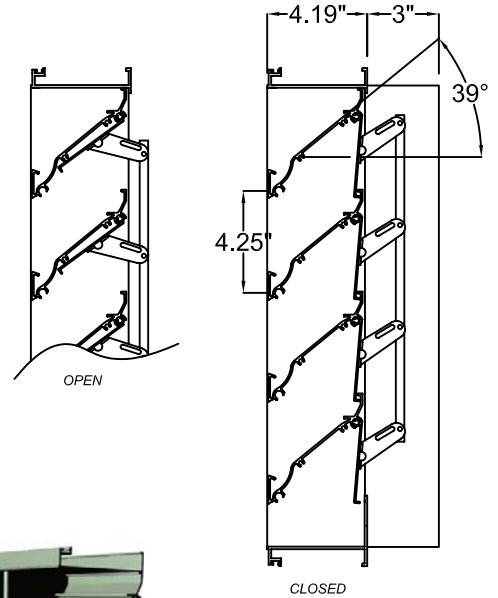
Factory assembled multi-section max: 84"w x 120"h  
60"w x 120"h single section (Larger sizes are field assembled).

**OPTIONS:**

- Flanged Frame (1.5" std.)
- Custom Flange (1", 2", or 3")
- Glazing Adapter (.50" or .75")
- Extended Sill
- Insect Screen (Other Screens Available, See Screen Page)
- Filter Racks (no screen)
- Security Bars
- Hinged Sub Frame
- Welded Construction (Wind Load +/- 50 psf)
- Actuator: See Actuator Selection Chart

**AVAILABLE FINISHES:**

- Powder Polyester TGIC** (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2603 Standards
- Powder Super durable polyester** (2 coats) baked on at 410°F, 2.5 to 3.5 mils Meets AAMA-2604-05 Standards
- Acrylic baked enamel (ACRA-BOND® ULTRA)** by AkzoNobel baked on at 350°F, 0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- Kynar® (ALUM\*A\*STAR®)** 2 coats by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry Meets AAMA-2604-05 Standards
- Kynar 500®** or **HYLAR® 5000 70% TRINAR®** (2 coats) by AkzoNobel baked on at 450°F, 1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards
- Kynar 500®** or **HYLAR® 5000 (70% Tri-Escent II)** (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors - custom colors available. Baked on at 415°F, 1.4 to 1.8 mils dry, meets AAMA 2605-05.
- Clear Anodize 204 R-1 Class II (AA-C22A31)**(0.4 to 0.7 mil)
- Clear Anodize 215 R-1 Class I (AA-C22A41)**(>0.7 mil)
- Integral Color Anodize (AA-C22A42)**(>0.7 mil)
  - Clear coat available for all above finishes.
  - Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
  - Kynar® 500 is a registered trademark of Arkema.
  - ALUM\*A\*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
  - ACRA-BOND® ULTRA is a registered trademark of AkzoNobel



\*Width and Height dimensions are approximately 1/4" under listed size.

Due to continuing research, United Enertech reserves the right to change specifications without notice.

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	<p><b>MODEL CEL-D-4 (Adjustable Combination Louver/Damper 4")</b></p>				

DRAWN BY:	DATE:	REV. DATE:	REV. NO.	APPROVED BY:	DWG. NO.:
CLJ	JUNE 2009	MAY 2010	5	BGT	A-31

## SUGGESTED SPECIFICATION

Finish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be drainable blade style with 39° stationary blades. Stationary blades shall be contained within a 4.19" frame. Louver components (heads, jambs, sills, blades, and mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provided overall sizes required. Louver design shall incorporate structural supports required to withstand a wind load of 30 lbs. per sq. ft. (equivalent of a 110 mph wind).

## PERFORMANCE DATA

AMCA Standard 500 provides a reasonable basis for testing and rating louvers. Testing to AMCA 500 is performed under a certain set of laboratory conditions. This does not guarantee that other conditions will not occur in the actual environment where louvers must operate. The louver system should be designed with a reasonable safety factor for louver performance. To ensure protection from water carryover, design with a performance level somewhat below maximum desired pressure drop and .01 oz./sq. ft. of water penetration.

Louvers shall be United Enertech CEL-D-4, 6063-T5 aluminum construction as follows:

FRAME: 4.19" deep, .081" nominal wall thickness

BLADES: .081" nominal wall thickness (fixed) and .061" wall thickness (moveable). Blades are positioned at 39° angle and spaced approximately 4.25" center to center.

SCREEN: .75" x .051" (19 x 1.3) expanded, flattened aluminum in removable frame.

FINISH: Select finish specification from United Enertech Finishes brochure.

Published louver performance data bearing the AMCA Certified Ratings seal for Air Performance & Water Penetration must be submitted for approval prior to fabrication and must demonstrate pressure drop and water penetration equal to or less than the United Enertech model specified.

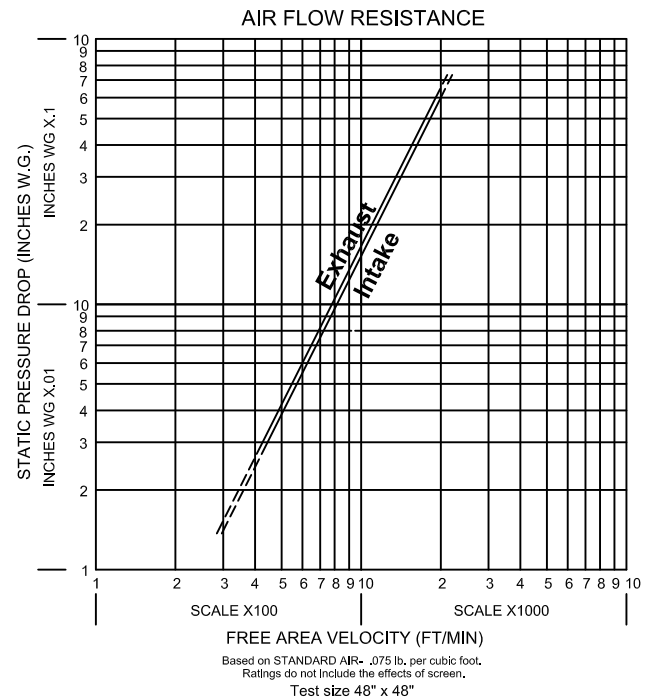
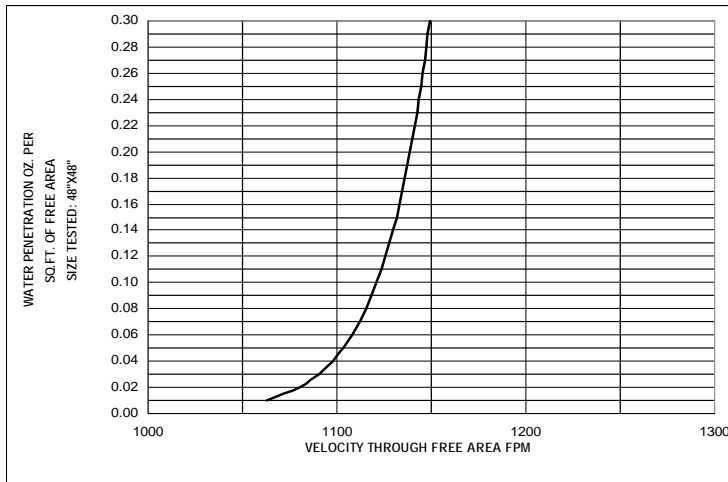
CEL-D-4 FREE AREA IN SQ. FT.

Louver Height Inches	Width - Inches										Louver Height Inches
	12	18	24	30	36	42	48	54	60		
12	0.24	0.39	0.55	0.70	0.85	1.00	1.15	1.30	1.45	12	
18	0.47	0.75	1.04	1.32	1.61	1.90	2.18	2.47	2.76	18	
24	0.66	1.06	1.47	1.88	2.28	2.69	3.09	3.50	3.90	24	
30	0.93	1.51	2.08	2.65	3.23	3.80	4.38	4.95	5.52	30	
36	1.09	1.76	2.43	3.09	3.76	4.43	5.10	5.77	6.44	36	
42	1.35	2.18	3.00	3.83	4.66	5.49	6.32	7.15	7.98	42	
48	1.55	2.51	3.47	4.42	5.38	6.34	7.29	8.25	9.21	48	
54	1.76	2.84	3.93	5.01	6.10	7.18	8.26	9.35	10.43	54	
60	2.02	3.26	4.50	5.74	6.98	8.22	9.46	10.70	11.94	60	
66	2.02	3.26	4.50	5.74	6.98	8.22	9.46	10.70	11.94	66	
72	2.45	3.96	5.46	6.97	8.48	9.98	11.49	13.00	14.51	72	
78	2.61	4.22	5.82	7.43	9.04	10.64	12.25	13.86	15.46	78	
84	2.86	4.63	6.39	8.15	9.91	11.67	13.44	15.20	16.96	84	
90	3.10	5.01	6.92	8.83	10.73	12.64	14.55	16.46	18.37	90	
96	3.28	5.29	7.31	9.33	11.35	13.36	15.38	17.40	19.41	96	
102	3.55	5.74	7.92	10.11	12.29	14.48	16.66	18.85	21.04	102	
108	3.72	6.01	8.30	10.59	12.88	15.17	17.46	19.75	22.04	108	
114	3.97	6.41	8.85	11.29	13.73	16.17	18.61	21.05	23.49	114	
120	4.19	6.76	9.34	11.92	14.49	17.07	19.64	22.22	24.80	120	



United Enertech Corporation certifies that the louver model shown hereon is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with the AMCA publication 511 and comply with the requirement of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Performance and Water Penetration ratings.

Beginning point of **WATER PENETRATION** for **MODEL CEL-D-4** is **1058 fpm**  
free area velocity at .01 oz. of water (penetration)



Based on STANDARD AIR-.075 lb. per cubic foot.  
Ratings do not include the effects of screen.  
Test size 48" x 48"