

# ELC445D

## Drainable Combination Louver Extruded Aluminum



### APPLICATION

The ELC445D is an 4" deep extruded aluminum, combination louver. It includes a fixed front stationary blade and a rear adjustable blade that can be operated closed. This is beneficial when the occupant requires a tight air shut off for protection of air intake and exhaust openings in building exterior walls. The louver is designed with a drainable gutter system channeling water from the blades to downspouts in the jambs, where water is exhausted out of the front of the louver.

### STANDARD CONSTRUCTION

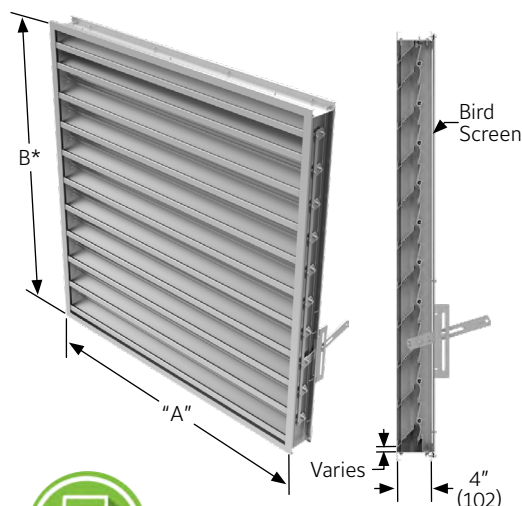
<b>Frame</b>	4" (102) deep, 6063T6 extruded aluminum with .080" (2.0) nominal wall thickness. Downspouts and caulking surfaces provided.
<b>Blades</b>	Front stationary drainable blades – 6063T6 extruded aluminum with .060" (1.5) nominal wall thickness, positioned at 45° angle and spaced approximately 47/16" (113) center to center. Rear adjustable blades – 6063T6 extruded aluminum, .080" (2.0) nominal wall thickness for operating section widths through 48" (1219).
<b>Screen</b>	3/4" x .051" (19 x 1.3) expanded, flattened aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.
<b>Seals</b>	Extruded vinyl blade edge seals on rear adjustable blades and flexible, compressible aluminum jamb seals.
<b>Linkage</b>	Concealed
<b>Bearings</b>	Stainless steel sleeve pressed into frame.
<b>Axles</b>	1/2" (13) plated steel hex.
<b>Actuator</b>	Locking louver quadrant.
<b>Finish</b>	Mill.
<b>Minimum Size</b>	12"w x 12"h (305 x 305)
<b>Approximate Shipping Weight</b>	6 lbs./ft.2 (29.3 kg per m <sup>2</sup> )
<b>Maximum Factory Assembly Size</b>	Shall be 48"w x 96"h (1219 x 2438). Louvers larger than the maximum factory assembly size will require field assembly of smaller sections.

### FEATURES

- ▶ Published performance ratings based on testing in accordance with AMCA Publication 511.
- ▶ 39% Free Area.
- ▶ Low water penetration and low pressure drop.
- ▶ Beginning point of water penetration at .01 oz. /sq. ft. is 974 fpm (297 m/min).
- ▶ Concealed blade linkage is protected from weather exposure and reduces required installation depth.
- ▶ Adjustable rear blades provide desired shut off in the same 4" (102) deep frame normally required by a louver alone.
- ▶ Blade and jamb seals provide tight closure.
- ▶ A drain gutter in each front stationary blade and downspouts in jambs and mullions drain water from the louver with minimum water cascade from blade to blade.

#### NOTE:

- Dimensions in inches, parenthesis ( ) indicate millimeters.
- Units furnished 1/4" (6) smaller than given opening dimensions.



YEAR LIMITED  
WARRANTY

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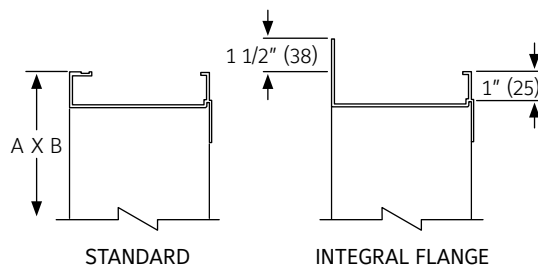
### VARIATIONS

Variations to the basic design of these louvers are available at additional cost. They include:

- ▶ Extended sill.
- ▶ Electric or pneumatic actuators.
- ▶ Front or rear security bars.
- ▶ Jamb seals (optional).
- ▶ Blade edge seals (optional).
- ▶ Filter racks.
- ▶ A variety of bird and insect screens.
- ▶ Please provide rough opening dimensions for "A" and "B" dimensions. Unless ordered as actual size, the louver will be provided 1/2" (12) smaller than "A" and "B" dimensions provided.
- ▶ Optional finishes available at additional cost: Prime coat, 50% PVDF (modified fluoropolymer), Epoxy, Pearledize, 70% PVDF, Clear and Anodized finishes. (Some variation in anodize color consistency is possible).

Consult Ruskin for other special requirements.

### FRAME CONSTRUCTION



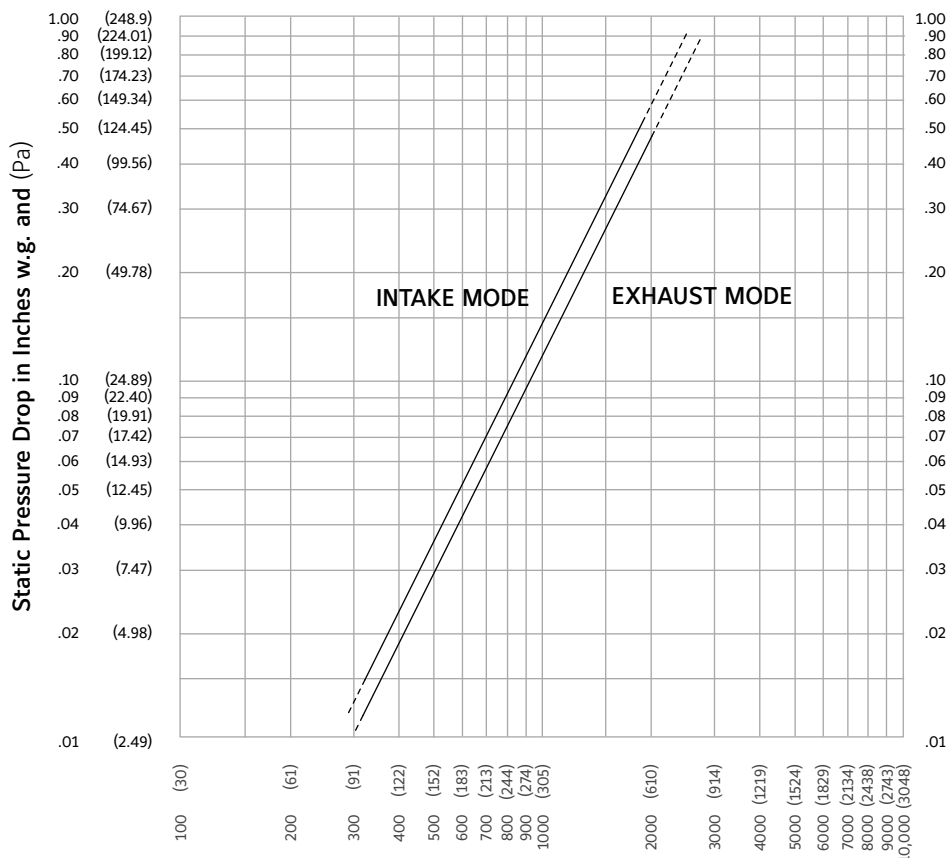
## FREE AREA GUIDE

Free Area Guide shows free area in ft<sup>2</sup> and m<sup>2</sup> for various sizes of ELC445D.

### Width – Inches and Meters

	HEIGHT	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
		0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	3.00
Height – Inches and Meters	12	0.16	0.26	0.36	0.45	0.55	0.65	0.75	0.85	0.94	1.04	1.14	1.24	1.34	1.44	1.53	1.63	1.73	1.83	1.93
	0.30	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.12	0.13	0.14	0.15	0.16	0.17	0.18
	18	0.33	0.54	0.74	0.95	1.15	1.36	1.56	1.77	1.97	2.18	2.38	2.59	2.80	3.00	3.21	3.41	3.62	3.82	4.03
	0.45	0.03	0.05	0.07	0.09	0.11	0.13	0.15	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.36	0.37
	24	0.51	0.82	1.13	1.44	1.76	2.07	2.38	2.69	3.00	3.32	3.63	3.94	4.25	4.57	4.88	5.19	5.50	5.81	6.13
	0.60	0.05	0.08	0.11	0.13	0.16	0.19	0.22	0.25	0.28	0.31	0.34	0.37	0.40	0.42	0.45	0.48	0.51	0.54	0.57
	30	0.75	1.21	1.67	2.13	2.59	3.05	3.51	3.97	4.43	4.89	5.36	5.82	6.28	6.74	7.20	7.66	8.12	8.58	9.04
	0.75	0.07	0.11	0.16	0.20	0.24	0.28	0.33	0.37	0.41	0.46	0.50	0.54	0.58	0.63	0.67	0.71	0.76	0.80	0.84
	36	0.92	1.49	2.06	2.63	3.19	3.76	4.33	4.90	5.46	6.03	6.60	7.17	7.73	8.30	8.87	9.44	10.01	10.57	11.14
	0.90	0.09	0.14	0.19	0.24	0.30	0.35	0.40	0.46	0.51	0.56	0.61	0.67	0.72	0.77	0.82	0.88	0.93	0.98	1.04
	42	1.10	1.77	2.45	3.12	3.80	4.47	5.14	5.82	6.49	7.17	7.84	8.52	9.19	9.87	10.54	11.22	11.89	12.57	13.24
	1.05	0.10	0.16	0.23	0.29	0.35	0.42	0.48	0.54	0.60	0.67	0.73	0.79	0.85	0.92	0.98	1.04	1.11	1.17	1.23
	48	1.34	2.16	2.98	3.81	4.63	5.45	6.28	7.10	7.92	8.75	9.57	10.39	11.22	12.04	12.86	13.69	14.51	15.33	16.16
	1.20	0.12	0.20	0.28	0.35	0.43	0.51	0.58	0.66	0.74	0.81	0.89	0.97	1.04	1.12	1.20	1.27	1.35	1.43	1.50
	54	1.51	2.44	3.37	4.30	5.23	6.16	7.09	8.02	8.95	9.88	10.81	11.74	12.67	13.60	14.53	15.47	16.40	17.33	18.26
	1.35	0.14	0.23	0.31	0.40	0.49	0.57	0.66	0.75	0.83	0.92	1.01	1.09	1.18	1.27	1.35	1.44	1.52	1.61	1.70
	60	1.69	2.72	3.76	4.80	5.83	6.87	7.91	8.95	9.98	11.02	12.06	13.10	14.13	15.17	16.21	17.24	18.28	19.32	20.36
	1.50	0.16	0.25	0.35	0.45	0.54	0.64	0.74	0.83	0.93	1.02	1.12	1.22	1.31	1.41	1.51	1.60	1.70	1.80	1.89
	66	1.93	3.11	4.30	5.48	6.67	7.86	9.04	10.23	11.41	12.60	13.78	14.97	16.16	17.34	18.53	19.71	20.90	22.08	23.27
	1.65	0.18	0.29	0.40	0.51	0.62	0.73	0.84	0.95	1.06	1.17	1.28	1.39	1.50	1.61	1.72	1.83	1.94	2.05	2.16
	72	2.10	3.39	4.69	5.98	7.27	8.56	9.86	11.15	12.44	13.74	15.03	16.32	17.61	18.91	20.20	21.49	22.79	24.08	25.37
	1.80	0.20	0.32	0.44	0.56	0.68	0.80	0.92	1.04	1.16	1.28	1.40	1.52	1.64	1.76	1.88	2.00	2.12	2.24	2.36
	78	2.34	3.78	5.22	6.67	8.11	9.55	10.99	12.43	13.87	15.31	16.76	18.20	19.64	21.08	22.52	23.96	25.40	26.84	28.29
	1.95	0.22	0.35	0.49	0.62	0.75	0.89	1.02	1.16	1.29	1.42	1.56	1.69	1.83	1.96	2.09	2.23	2.36	2.50	2.63
	84	2.52	4.06	5.61	7.16	8.71	10.26	11.81	13.35	14.90	16.45	18.00	19.55	21.10	22.64	24.19	25.74	27.29	28.84	30.39
	2.10	0.23	0.38	0.52	0.67	0.81	0.95	1.10	1.24	1.39	1.53	1.67	1.82	1.96	2.11	2.25	2.39	2.54	2.68	2.83
	90	2.69	4.35	6.00	7.66	9.31	10.97	12.62	14.28	15.93	17.59	19.24	20.90	22.55	24.21	25.86	27.52	29.17	30.83	32.49
	2.25	0.25	0.40	0.56	0.71	0.87	1.02	1.17	1.33	1.48	1.64	1.79	1.94	2.10	2.25	2.41	2.56	2.71	2.87	3.02
	96	2.93	4.74	6.54	8.34	10.15	11.95	13.75	15.56	17.36	19.17	20.97	22.77	24.58	26.38	28.18	29.99	31.79	33.60	35.40
	2.40	0.27	0.44	0.61	0.78	0.94	1.11	1.28	1.45	1.61	1.78	1.95	2.12	2.29	2.45	2.62	2.79	2.96	3.12	3.29
	102	3.11	5.02	6.93	8.84	10.75	12.66	14.57	16.48	18.39	20.30	22.21	24.12	26.04	27.95	29.86	31.77	33.68	35.59	37.50
	2.55	0.29	0.47	0.64	0.82	1.00	1.18	1.36	1.53	1.71	1.89	2.07	2.24	2.42	2.60	2.78	2.95	3.13	3.31	3.49
	108	3.28	5.30	7.31	9.33	11.35	13.37	15.39	17.40	19.42	21.44	23.46	25.48	27.49	29.51	31.53	33.55	35.56	37.58	39.60
	2.70	0.30	0.49	0.68	0.87	1.06	1.24	1.43	1.62	1.81	1.99	2.18	2.37	2.56	2.74	2.93	3.12	3.31	3.50	3.68
	114	3.52	5.69	7.85	10.02	12.19	14.35	16.52	18.69	20.85	23.02	25.18	27.35	29.52	31.68	33.85	36.02	38.18	40.35	41.52
	2.85	0.33	0.53	0.73	0.93	1.13	1.33	1.54	1.74	1.94	2.14	2.34	2.54	2.75	2.95	3.15	3.35	3.55	3.75	3.95
	120	3.69	5.97	8.24	10.51	12.79	15.06	17.33	19.61	21.88	24.15	26.43	28.70	30.97	33.25	35.52	37.80	40.07	42.34	44.62
	3.00	0.34	0.55	0.77	0.98	1.19	1.40	1.61	1.82	2.03	2.25	2.46	2.67	2.88	3.09	3.30	3.51	3.73	3.94	4.15

## PRESSURE DROP



Ratings do not include the effect of a bird screen.

**Air Velocity in feet and (meters) per minute through Free Area**  
(Data corrected to standard air density and AMCA figure or figures testes to 5.5)

## PERFORMANCE DATA

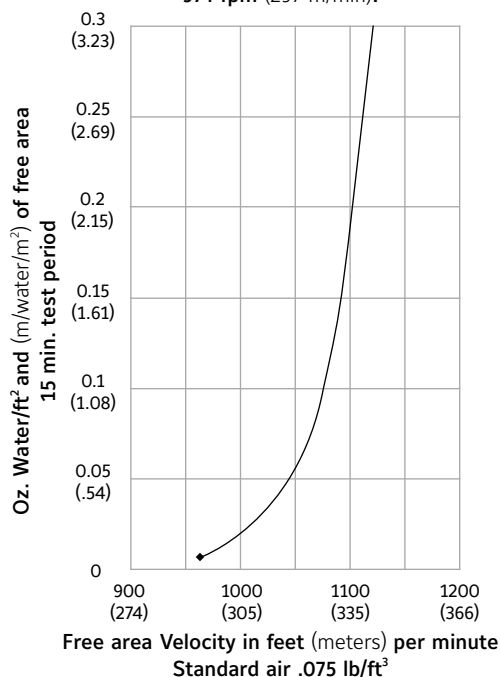
AMCA Standard 500 provides a reasonable basis for testing and rating louvers. Testing to AMCA 500 is performed under a certain set of laboratory conditions. This does not guarantee that other conditions will not occur in the actual environment where louvers must operate.

The louver system should be designed with a reasonable safety factor for louver performance. To ensure protection from water carry-over, design with a performance level somewhat below maximum desired pressure drop and .01 oz./sq. ft. of water penetration.

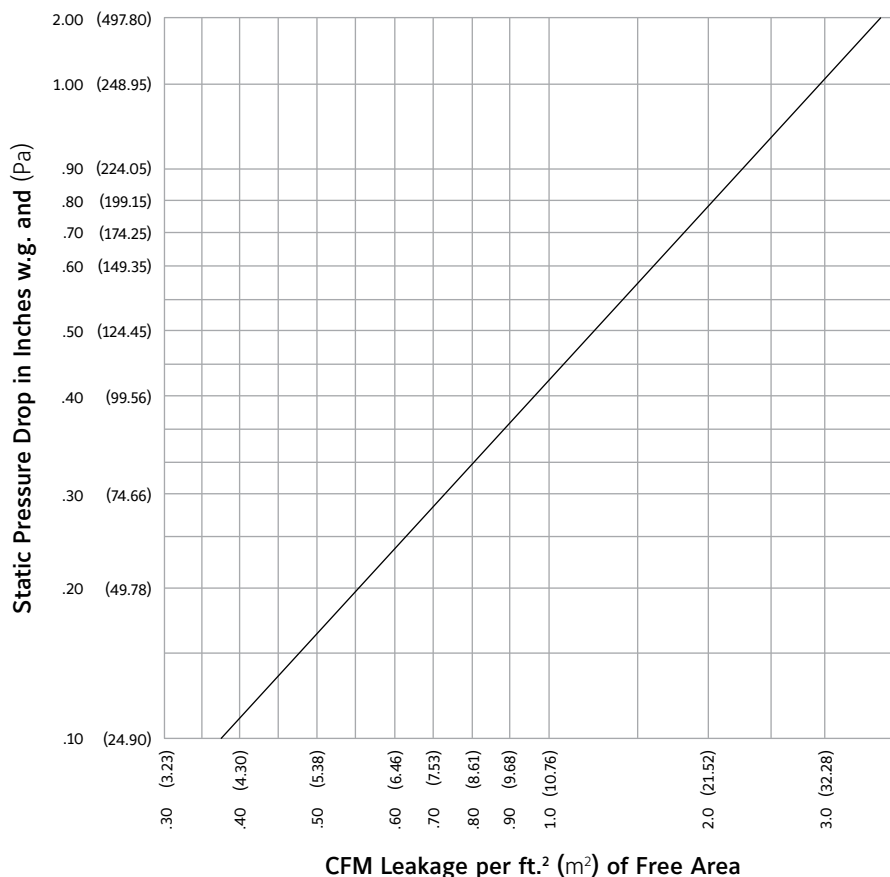


Ruskin Manufacturing Company certifies that the louver shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Standard 511 and comply with the requirements of the AMCA Certified Ratings Program. AMCA Certified Ratings Seal applies to air performance ratings and water penetration ratings only.

**Water penetration**  
Test size 48" wide X 48" high (1219 X 1219)  
Beginning point of water penetration at .01 oz. /sq. ft. is  
974 fpm (297 m/min).



## AIR LEAKAGE



## SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be stationary drainable type with drain gutters in each blade and downspouts in jambs and mullions. Louvers shall have a minimum of 39% free area based on a 48" wide x 48" high (1219 x 1219) size. Stationary drainable blades shall be contained within a 4" (102) frame. Louver components (heads, jambs, sills, blades, & 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 provide overall sizes required. Louver design shall limit span between visible mullions to 10 feet (3) and shall incorporate structural supports required to withstand a windload of 30 lbs. per sq. ft. (1.44KPa) (equivalent of a 110 mph wind [177 KPH] wind-specifier may substitute any loading required).

Louvers shall be Ruskin model ELC445D extruded 6063T6 aluminum construction as follows:

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 Ruskin model specified.

Frame: 4" (102) deep, .080" (2.0) wall thickness.

Blades: .060" (1.5) nominal wall thickness.

Screen: 3/4" x .051" (19 x 1.3) expanded, flattened aluminum in removable frame.

Finish: Select finish specification from Ruskin Finishes Brochure.

### LINKS TO IMPORTANT DOCUMENTS

#### Document Title

Paint Finishes and Color Guide

Limited Warranty Document



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