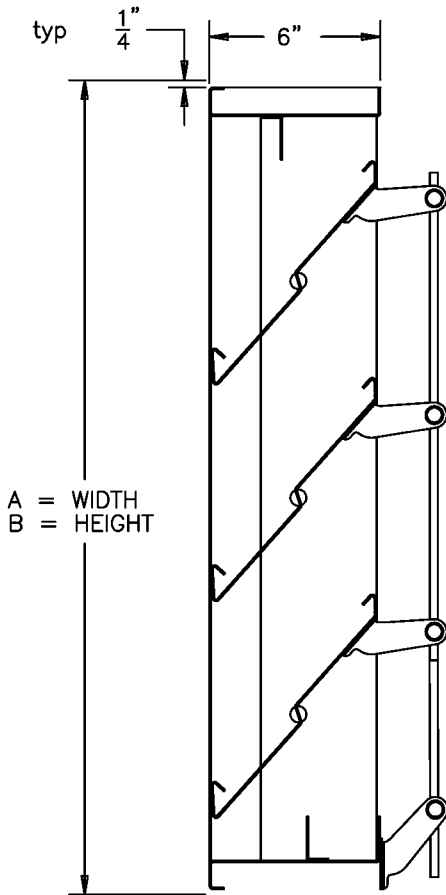


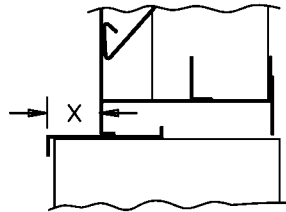
GALVANIZED STEEL, 6" DEEP, HEAVY GAUGE, DRAINABLE ADJUSTABLE TYPE BLADE



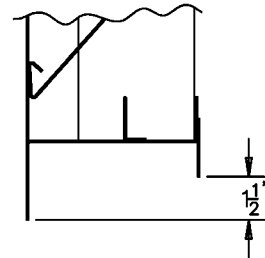
SECTION VIEW

MODEL LF-33A STANDARD SPECIFICATIONS

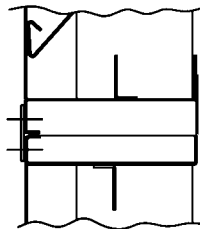
- FRAME: 6" DEEP CHANNEL, 16 GAUGE GALVANIZED STEEL.
- BLADES: 16 GAUGE GALVANIZED STEEL.
- FINISH: MILL WITH TOUCH UP ON WELDS.
- SCREEN: $\frac{1}{2}$ " REMOVABLE EXPANDED ALUMINUM BIRD SCREEN, LOCATED ON EXTERIOR.
- AXLES: $\frac{1}{2}$ " DIAMETER PLATED STEEL.
- BEARINGS: POLYMER PLASTIC SPLIT.
- LINKAGE: PLATED STEEL BRACKETS, BRASS BARRELS, AND $\frac{5}{16}$ " DIAMETER PLATED STEEL LINKAGE ROD.
- ACTUATOR: INDIVIDUAL PANEL WING NUT. SEE ACTUATOR BULLETIN FOR OTHER SELECTIONS.
- MAX. PANEL SIZE: 60" X 96" W/O SEALS OR W/ BLADE SEALS ONLY.
48" X 96" WITH BLADE & JAMB SEALS.
- MIN. PANEL SIZE: 12" X 13".
- DIMENSIONS: "A" (WIDTH) AND "B" (HEIGHT) ARE OPENING SIZES. LOUVERS ARE MADE $\frac{1}{2}$ " UNDERSIZE.



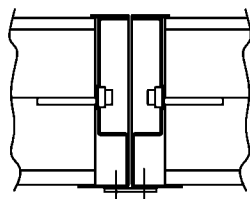
EXTENDED SILL
OPTIONAL



FLANGED FRAME
OPTIONAL
(JAMB SHOWN)



STANDARD HORIZONTAL
MULLION



STANDARD VERTICAL
MULLION

awv american warming
and ventilating

A MESTEK COMPANY

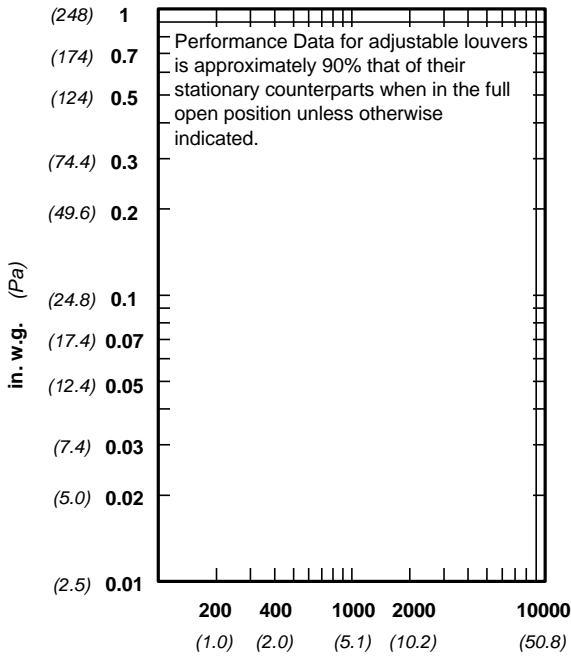
7301 INTERNATIONAL DRIVE HOLLAND, OHIO
Phone (419) 865-5000 Fax (419) 865-1375

LF-33A ADJUSTABLE LOUVER

DRN. BY JP	DWG. NO. LF-33A	REV.
DATE 12-7-00		

Water Penetration : Performance Data for adjustable louvers is approximately 90% that of their stationary counterparts when in the full open position unless otherwise indicated.
Pressure Drop : Performance Data for adjustable louvers is approximately 90% that of their stationary counterparts when in the full open position unless otherwise indicated.
Free Area : 6.55 sq ft (0.609 sq m) = 41% for 48" x 48" (1.22m x 1.22m) test size

INTAKE PRESSURE DROP



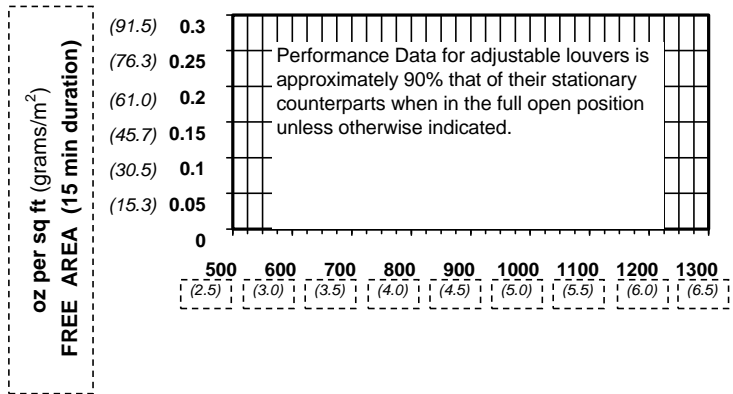
FREE AREA IN SQUARE FEET (sq meters)

HEIGHT	WIDTH								
	in. mm	12 305	18 457	24 610	30 762	36 914	42 1067	48 1219	60 1524
12	0.21	0.37	0.52	0.68	0.84	0.99	1.15	1.46	
305	0.020	0.034	0.048	0.063	0.078	0.092	0.107	0.136	
24	0.42	0.72	1.02	1.32	1.62	1.93	2.23	2.83	
610	0.039	0.067	0.095	0.123	0.151	0.179	0.207	0.263	
36	0.82	1.41	2.01	2.60	3.20	3.80	4.39	5.58	
914	0.076	0.131	0.187	0.242	0.297	0.353	0.408	0.518	
48	1.22	2.11	3.00	3.89	4.78	5.67	6.55	8.33	
1219	0.113	0.196	0.279	0.361	0.444	0.527	0.609	0.774	
60	1.42	2.46	3.49	4.53	5.57	6.60	7.64	9.71	
1524	0.132	0.229	0.324	0.421	0.517	0.613	0.710	0.902	
72	1.83	3.16	4.48	5.81	7.14	8.47	9.80	12.46	
1829	0.170	0.294	0.416	0.540	0.663	0.787	0.910	1.158	
84	2.23	3.85	5.47	7.10	8.72	10.34	11.96	15.21	
2134	0.207	0.358	0.508	0.660	0.810	0.961	1.111	1.413	
96	2.63	4.55	6.46	8.38	10.30	12.21	14.13	17.96	
2438	0.244	0.423	0.600	0.779	0.957	1.134	1.313	1.669	

VELOCITY THROUGH FREE AREA fpm (m/s)

standard air- .075 lbs per cu ft
 Ratings do not include the effect of a wire bird screen
 Test based on a 48" x 48" test size per AMCA Standard 51

WATER PENETRATION



Leakage:

We have shown two leakage values for the louver sizes below. The upper values with blade seals, and lower values are with optional blade and jamb seals. Values were derived from tests performed in accordance with AMCA 500. Values are in total (CFM) at 1 in wg differential pressure.

TOTAL LEAKAGE IN SCFM @ 1 IN wg DP
CLOSING TORQUE IN inch/pounds

Openings that require multiple louver panels in both width and height will require internal structural supports. It is recommended that large openings be divided with structural members so that the louvers will span either width or height with a single panel. Unusually high wind loading may require maximum panel size to be reduced, check with factory before ordering Structural supports and mounting accessories are not supplied by AWW as a standard.

HEIGHT		WIDTH				
		SEALS	12	24	36	48
12	BLADE	67	86	107	127	147
	BLD & JMB	21	28	34	41	n/a
24	BLADE	145	185	225	265	305
	BLD & JMB	54	67	81	94	n/a
36	BLADE	231	301	371	441	511
	BLD & JMB	100	123	146	170	n/a
48	BLADE	309	399	490	580	670
	BLD & JMB	132	163	193	227	n/a
60	BLADE	388	498	608	718	828
	BLD & JMB	165	202	239	275	n/a
72	BLADE	466	596	726	857	988
	BLD & JMB	198	241	285	328	n/a
84	BLADE	544	695	845	995	1145
	BLD & JMB	231	281	331	381	n/a
96	BLADE	623	793	963	1133	1303
	BLD & JMB	264	320	377	434	n/a

Operating Force Factor:

Louvers are normally operated by applying a force to the blade to blade linkage whereas dampers are driven through the blade axles. Because of this fact, simple operating torques cannot be published. The factors shown are to be used with the data shown in our louver actuator selection guide found in our louver actuator price list.

HEIGHT		WIDTH				
		SEALS	12	24	36	48
12	BLADE	10	23	35	48	61
	BLD & JMB	21	39	56	74	n/a
24	BLADE	24	52	80	108	136
	BLD & JMB	53	92	130	168	n/a
36	BLADE	37	81	119	168	217
	BLD & JMB	85	144	204	263	n/a
48	BLADE	51	110	169	228	287
	BLD & JMB	116	197	277	358	n/a
60	BLADE	64	139	213	287	361
	BLD & JMB	148	249	351	452	n/a
72	BLADE	78	168	257	347	437
	BLD & JMB	180	302	424	547	n/a
84	BLADE	91	197	302	407	512
	BLD & JMB	212	355	497	642	n/a
96	BLADE	105	226	346	467	588
	BLD & JMB	244	408	570	737	n/a