



Acoustic
Louvers



Air Outlets

Since 1982

ACOUSTIC LOUVERS

Model: ACL-150

Acoustic louvers are used in Air intake and exhaust applications with the dual function of weather protection and airborne sound reduction. Suitable for commercial and industrial applications.

Constructional Details

Frame

Frame is made of 0.90mm thickness galvanized steel sheet.

Blades

Double wall galvanized steel blade filled with acoustic infill. Top of the blade is made of 0.90mm galvanized steel sheet and the bottom is from 0.70mm galvanized steel perforated sheet.

Infill

64kg/m³ density sound absorbing Rockwool insulation with Black Glass Tissue Facing to avoid the erosion of fiber particles in high airway velocities.

Screen

12.5 x 12.5mm galvanized steel bird screen

Mounting

Vertical

Finish

Factory mill finish

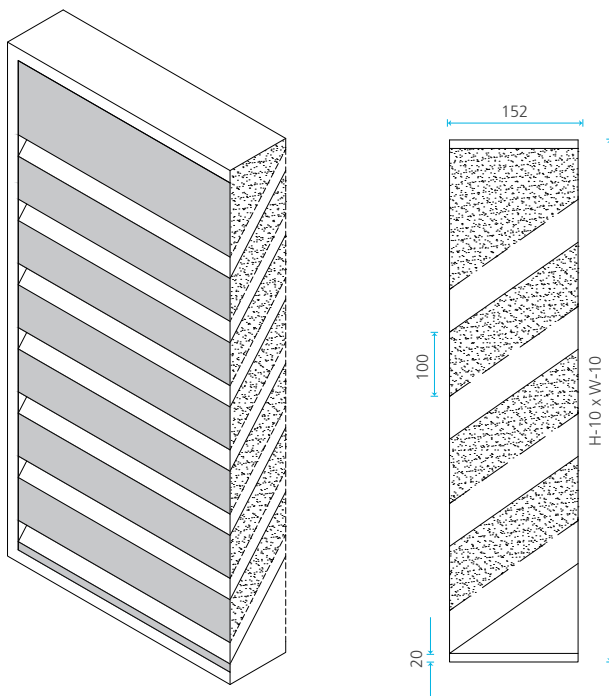
Minimum single section

300 x 300mm

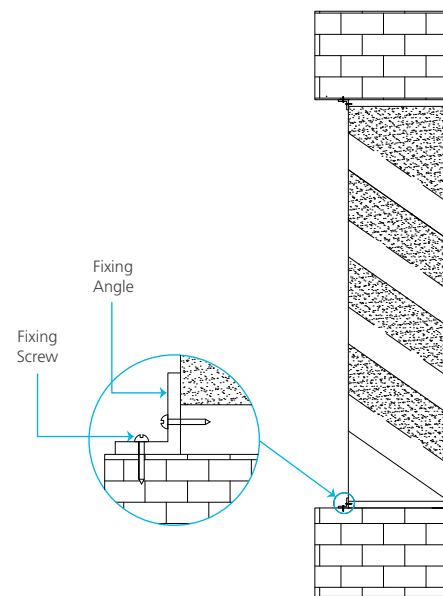
Maximum single section

1500 x 3000mm (larger sizes are manufactured in multiple pieces for assembling at site)

Dimensional Details



Installation Details



Acoustic Performance

Frequency (Hz)	125	250	500	1000	2000	4000	STC
Transmission Loss (dB)	6	7	10	10	10	11	10
Free Field Noise Reduction (dB)	12	13	16	16	16	17	

● Free Field Noise Reduction = Transmission Loss + 6 dB ● STC - Sound Transmission Coefficient

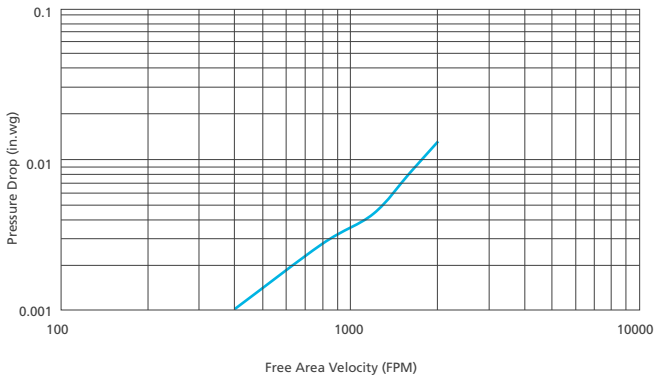
LOUVER WIDTH in mm (Inches)

	305	457	610	762	914	1067	1219	1372	1524	1676	1829	1981	2134	2286	2438	2591	2743	2896	3048
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
356	0.019	0.029	0.040	0.051	0.061	0.072	0.083	0.093	0.104	0.112	0.122	0.133	0.144	0.154	0.165	0.176	0.186	0.197	0.208
14	0.20	0.31	0.43	0.54	0.66	0.77	0.89	1.00	1.12	1.20	1.32	1.43	1.55	1.66	1.78	1.89	2.01	2.12	2.24
610	0.028	0.044	0.060	0.076	0.092	0.108	0.124	0.140	0.156	0.168	0.184	0.200	0.216	0.232	0.248	0.264	0.280	0.296	0.312
24	0.30	0.47	0.64	0.82	0.99	1.16	1.33	1.51	1.68	1.80	1.98	2.15	2.32	2.49	2.67	2.84	3.01	3.18	3.35
914	0.046	0.073	0.100	0.126	0.153	0.180	0.206	0.233	0.260	0.279	0.306	0.333	0.359	0.386	0.413	0.439	0.466	0.493	0.519
36	0.50	0.79	1.07	1.36	1.65	1.93	2.22	2.51	2.80	3.01	3.29	3.58	3.87	4.16	4.44	4.73	5.02	5.30	5.59
1219	0.078	0.115	0.153	0.190	0.227	0.265	0.302	0.339	0.377	0.404	0.442	0.479	0.516	0.554	0.591	0.628	0.666	0.703	0.740
48	0.84	1.24	1.64	2.04	2.45	2.85	3.25	3.65	4.05	4.35	4.75	5.15	5.56	5.96	6.36	6.76	7.16	7.57	7.97
1524	0.093	0.146	0.199	0.253	0.306	0.359	0.413	0.466	0.519	0.559	0.612	0.665	0.719	0.772	0.825	0.879	0.932	0.985	1.039
60	1.00	1.57	2.15	2.72	3.29	3.87	4.44	5.02	5.59	6.01	6.59	7.16	7.74	8.31	8.89	9.46	10.03	10.61	11.18
1829	0.111	0.175	0.239	0.303	0.367	0.431	0.495	0.559	0.623	0.670	0.734	0.799	0.863	0.927	0.991	1.055	1.119	1.183	1.247
72	1.20	1.89	2.58	3.26	3.95	4.64	5.33	6.02	6.71	7.22	7.91	8.60	9.28	9.97	10.66	11.35	12.04	12.73	13.42
2134	0.130	0.204	0.279	0.354	0.428	0.503	0.578	0.652	0.727	0.782	0.857	0.932	1.006	1.081	1.156	1.230	1.305	1.380	1.454
84	1.40	2.20	3.00	3.81	4.61	5.42	6.22	7.02	7.83	8.42	9.22	10.03	10.83	11.64	12.44	13.24	14.05	14.85	15.65
2438	0.148	0.234	0.319	0.404	0.490	0.575	0.660	0.746	0.831	0.894	0.979	1.065	1.150	1.235	1.321	1.406	1.491	1.577	1.662
96	1.60	2.51	3.43	4.35	5.27	6.19	7.11	8.03	8.95	9.62	10.54	11.46	12.38	13.30	14.22	15.13	16.05	16.97	17.89
2743	0.167	0.263	0.359	0.455	0.551	0.647	0.743	0.839	0.935	1.006	1.102	1.198	1.294	1.390	1.486	1.582	1.678	1.774	1.870
108	1.80	2.83	3.86	4.90	5.93	6.96	8.00	9.03	10.06	10.83	11.86	12.89	13.93	14.96	15.99	17.03	18.06	19.09	20.13
3048	0.185	0.292	0.399	0.505	0.612	0.719	0.825	0.932	1.039	1.117	1.224	1.331	1.438	1.544	1.651	1.758	1.864	1.971	2.078
120	2.00	3.14	4.29	5.44	6.59	7.74	8.89	10.03	11.18	12.03	13.18	14.33	15.47	16.62	17.77	18.92	20.07	21.21	22.36

LOUVER HEIGHT in mm (Inches)

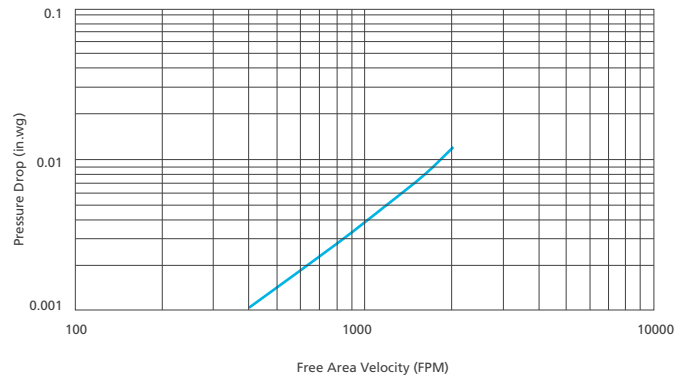
Free Area is in Sqm.eter and Sqr.ft.

Pressure Drop Vs Free Area Velocity (Intake)



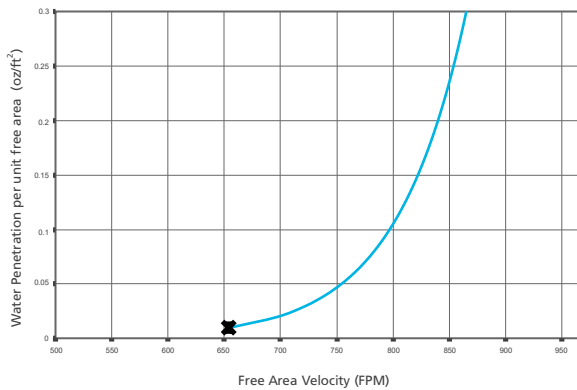
In accordance with ANSI/AMCA 500-L standard, Figure 5.5.

Pressure Drop Vs Free Area Velocity (Exhaust)



In accordance with ANSI/AMCA 500-L standard, Figure 5.5.

Water Penetration of ACL - 150



Beginning of water penetration per AMCA publication 511 section 8.3.2 based on measured free area is 652.9 FPM



Century Mechanical Systems Factory LLC certifies that the Model: ACL-150 shown herein is 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 Certified Ratings Seal applies to water penetration, air performance and sound ratings only

ACOUSTIC LOUVERS

Model: ACL-300

Acoustic louvers are used in Air intake and exhaust applications with the dual function of weather protection and airborne sound reduction. Suitable for commercial and industrial applications.

Constructional Details

Frame

Frame is made of 0.90mm thickness galvanized steel sheet.

Blades

Double wall galvanized steel blade filled with acoustic infill. Top of the blade is made of 0.90mm galvanized steel sheet and the bottom is from 0.70mm galvanized steel perforated sheet.

Infill

64kg/m³ density sound absorbing Rockwool insulation with Black Glass Tissue Facing to avoid the erosion of fiber particles in high airway velocities

Screen

12.5 x 12.5mm galvanized steel bird screen

Mounting

Vertical

Finish

Factory mill finish

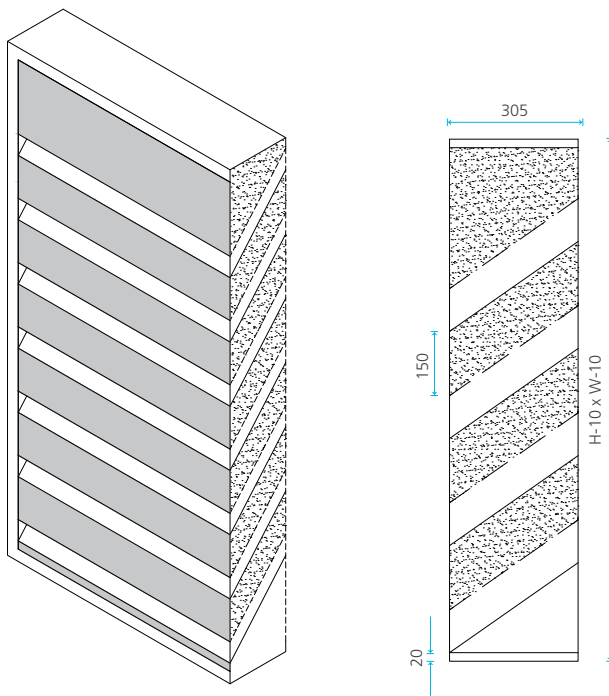
Minimum single section

300 x 350mm

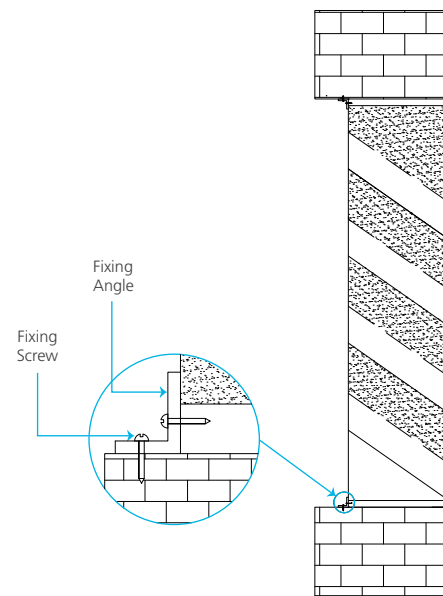
Maximum single section

1500 x 3000mm (larger sizes are manufactured in multiple pieces for assembling at site)

Dimensional Details



Installation Details



Acoustic Performance

Frequency (Hz)	125	250	500	1000	2000	4000	STC
Transmission Loss (dB)	5	7	10	12	13	11	11
Free Field Noise Reduction (dB)	11	13	16	18	19	17	

● Free Field Noise Reduction = Transmission Loss + 6 dB ● STC - Sound Transmission Coefficient

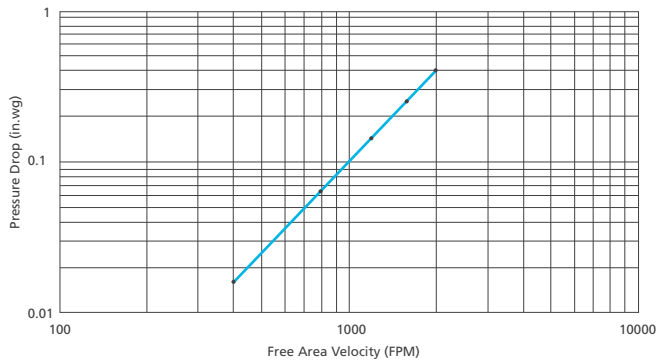
Tested in accordance with ASTM E90-2004 standard

LOUVER WIDTH in mm (Inches)

LOUVER HEIGHT in mm (Inches)	LOUVER WIDTH in mm (Inches)																		
	305 12	457 18	610 24	762 30	914 36	1067 42	1219 48	1372 54	1524 60	1676 66	1829 72	1981 78	2134 84	2286 90	2438 96	2591 102	2743 108	2896 114	3048 120
356	0.024	0.038	0.051	0.065	0.079	0.093	0.106	0.120	0.134	0.148	0.161	0.175	0.189	0.203	0.216	0.230	0.244	0.258	0.271
14	0.26	0.40	0.55	0.70	0.85	1.00	1.14	1.29	1.44	1.59	1.74	1.88	2.03	2.18	2.33	2.48	2.62	2.77	2.92
610	0.048	0.076	0.104	0.131	0.159	0.187	0.215	0.242	0.270	0.298	0.325	0.353	0.381	0.409	0.436	0.464	0.492	0.520	0.547
24	0.52	0.82	1.12	1.41	1.71	2.01	2.31	2.61	2.91	3.20	3.50	3.80	4.10	4.40	4.70	5.00	5.29	5.59	5.89
914	0.072	0.113	0.154	0.195	0.237	0.278	0.319	0.360	0.402	0.443	0.484	0.525	0.567	0.608	0.649	0.690	0.731	0.773	0.814
36	0.77	1.21	1.66	2.10	2.55	2.99	3.43	3.88	4.32	4.77	5.21	5.65	6.10	6.54	6.98	7.43	7.87	8.32	8.76
1219	0.096	0.150	0.206	0.260	0.315	0.371	0.425	0.481	0.535	0.590	0.645	0.700	0.756	0.810	0.865	0.920	0.975	1.030	1.085
48	1.03	1.62	2.21	2.80	3.39	3.99	4.58	5.17	5.76	6.35	6.95	7.54	8.13	8.72	9.31	9.91	10.50	11.09	11.68
1524	0.120	0.188	0.257	0.326	0.394	0.463	0.532	0.601	0.669	0.738	0.807	0.875	0.944	1.013	1.081	1.151	1.219	1.288	1.357
60	1.29	2.02	2.77	3.50	4.24	4.99	5.72	6.47	7.20	7.94	8.68	9.42	10.17	10.90	11.64	12.38	13.12	13.86	14.60
1829	0.143	0.226	0.308	0.391	0.473	0.556	0.638	0.721	0.803	0.885	0.968	1.050	1.133	1.216	1.298	1.381	1.463	1.546	1.628
72	1.54	2.43	3.32	4.21	5.09	5.98	6.87	7.76	8.65	9.53	10.42	11.31	12.20	13.08	13.97	14.86	15.75	16.64	17.52
2134	0.167	0.263	0.360	0.456	0.552	0.648	0.744	0.841	0.937	1.033	1.130	1.226	1.322	1.418	1.514	1.611	1.707	1.803	1.899
84	1.80	2.83	3.87	4.91	5.94	6.98	8.01	9.05	10.09	11.12	12.16	13.19	14.23	15.26	16.30	17.34	18.37	19.41	20.44
2438	0.191	0.301	0.411	0.521	0.631	0.741	0.851	0.961	1.071	1.181	1.291	1.401	1.511	1.621	1.730	1.841	1.950	2.061	2.171
96	2.06	3.24	4.43	5.61	6.79	7.98	9.16	10.35	11.53	12.71	13.90	15.08	16.26	17.45	18.63	19.81	21.00	22.18	23.36
2743	0.229	0.360	0.492	0.623	0.754	0.886	1.017	1.149	1.280	1.412	1.544	1.675	1.807	1.938	2.069	2.201	2.332	2.464	2.595
108	2.46	3.87	5.29	6.71	8.12	9.54	10.95	12.37	13.78	15.19	16.61	18.03	19.45	20.86	22.27	23.69	25.10	26.52	27.94
3048	0.254	0.400	0.547	0.693	0.839	0.986	1.132	1.279	1.425	1.571	1.718	1.864	2.011	2.157	2.302	2.449	2.595	2.742	2.888
120	2.74	4.31	5.89	7.46	9.03	10.61	12.19	13.77	15.34	16.91	18.49	20.06	21.64	23.21	24.78	26.36	27.94	29.52	31.09

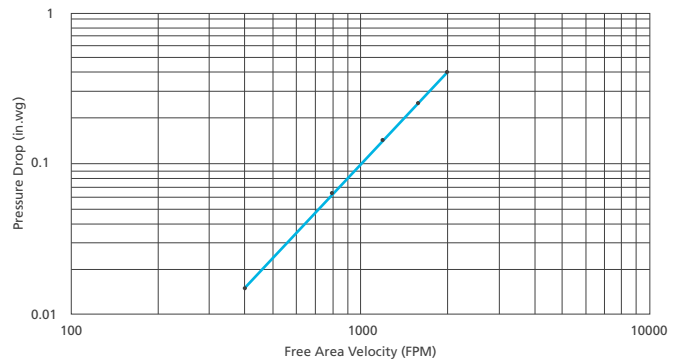
Free Area is in Sqr.meter and Sqr.ft.

Pressure Drop Vs Free Area Velocity (Intake)



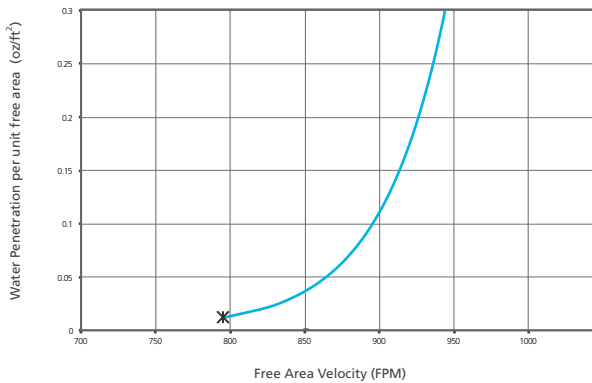
Tested in accordance with ANSI/AMCA 500-L, Figure 5.5. Test sample size is 48" x 48"

Pressure Drop Vs Free Area Velocity (Exhaust)



Tested in accordance with ANSI/AMCA 500-L, Figure 5.5. Test sample size is 48" x 48"

Water Penetration of ACL - 300



Beginning of water penetration per AMCA publication 511 section 8.3.2 based on AMCA measured free area is 791.6fpm



Century Mechanical Systems Factory LLC certifies that the Model: ACL-300 shown herein is 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 Certified Ratings Seal applies to water penetration, air performance and sound ratings only

ACOUSTIC LOUVERS

Model: ACL-600

Acoustic louvers are used in Air intake and exhaust applications with the dual function of weather protection and airborne sound reduction. Suitable for commercial and industrial applications.

Constructional Details

Frame

Frame is made of 0.90mm thickness galvanized steel sheet.

Blades

Double wall galvanized steel blade filled with acoustic infill. Top of the blade is made of 0.90mm galvanized steel sheet and the bottom is from 0.70mm galvanized steel perforated sheet.

Infill

64kg/m³ density sound absorbing Rockwool insulation with Black Glass Tissue Facing to avoid the erosion of fiber particles in high airway velocities.

Screen

12.5 x 12.5mm galvanized steel bird screen

Mounting

Vertical

Finish

Factory mill finish

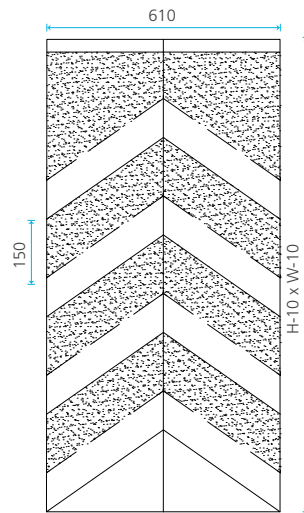
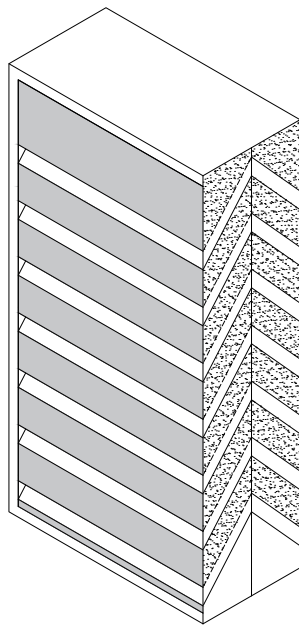
Minimum single section

300 x 350mm

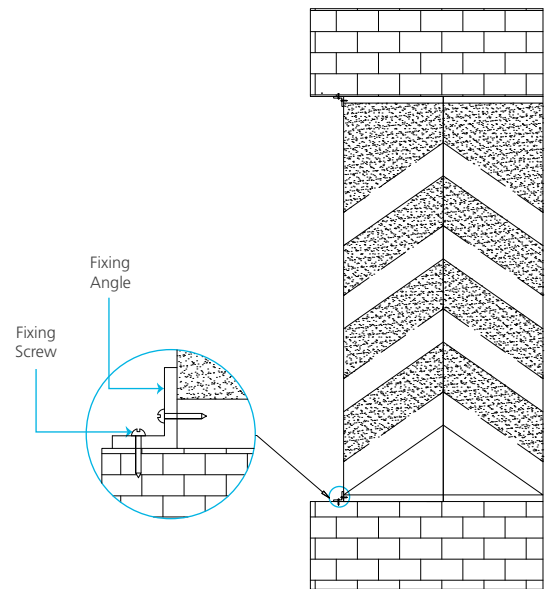
Maximum single section

1500 x 3000mm (larger sizes are manufactured in multiple pieces for assembling at site)

Dimensional Details



Installation Details



Acoustic Performance

Frequency (Hz)	125	250	500	1000	2000	4000	STC
Transmission Loss (dB)	11	14	15	14	17	21	16
Free Field Noise Reduction (dB)	17	20	21	20	23	27	

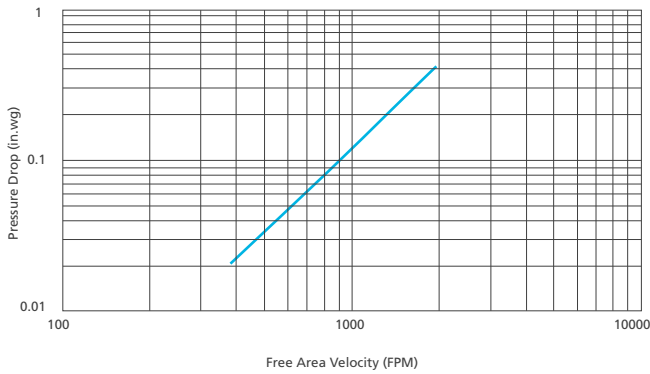
● Free Field Noise Reduction = Transmission Loss + 6 dB ● STC - Sound Transmission Coefficient

LOUVER WIDTH in mm (Inches)

	LOUVER WIDTH in mm (Inches)																		
	305	457	610	762	914	1067	1219	1372	1524	1676	1829	1981	2134	2286	2438	2591	2743	2896	3048
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
356	0.021	0.033	0.045	0.057	0.069	0.081	0.093	0.105	0.117	0.126	0.138	0.150	0.162	0.174	0.186	0.198	0.210	0.222	0.234
14	0.23	0.35	0.48	0.61	0.74	0.87	1.00	1.13	1.26	1.36	1.49	1.62	1.75	1.88	2.01	2.14	2.26	2.39	2.52
610	0.042	0.066	0.090	0.114	0.138	0.162	0.186	0.210	0.234	0.252	0.276	0.300	0.324	0.349	0.373	0.397	0.421	0.445	0.469
24	0.45	0.71	0.97	1.23	1.49	1.75	2.01	2.26	2.52	2.72	2.97	3.23	3.49	3.75	4.01	4.27	4.53	4.79	5.05
914	0.063	0.099	0.135	0.171	0.207	0.243	0.279	0.316	0.352	0.378	0.414	0.451	0.487	0.523	0.559	0.595	0.631	0.667	0.703
36	0.68	1.06	1.45	1.84	2.23	2.62	3.01	3.40	3.79	4.07	4.46	4.85	5.24	5.63	6.02	6.41	6.79	7.18	7.57
1219	0.084	0.132	0.180	0.228	0.276	0.324	0.373	0.421	0.469	0.504	0.553	0.601	0.649	0.697	0.745	0.793	0.842	0.890	0.938
48	0.90	1.42	1.94	2.46	2.97	3.49	4.01	4.53	5.05	5.43	5.95	6.47	6.99	7.50	8.02	8.54	9.06	9.58	10.10
1524	0.105	0.165	0.225	0.285	0.345	0.406	0.466	0.526	0.586	0.631	0.691	0.751	0.811	0.871	0.932	0.992	1.052	1.112	1.172
60	1.13	1.77	2.42	3.07	3.72	4.37	5.01	5.66	6.31	6.79	7.44	8.08	8.73	9.38	10.03	10.68	11.32	11.97	12.62
1829	0.126	0.198	0.270	0.342	0.414	0.487	0.559	0.631	0.703	0.757	0.829	0.901	0.973	1.046	1.118	1.190	1.262	1.335	1.407
72	1.35	2.13	2.91	3.68	4.46	5.24	6.02	6.79	7.57	8.15	8.92	9.70	10.48	11.26	12.03	12.81	13.59	14.37	15.14
2134	0.146	0.231	0.315	0.399	0.484	0.568	0.652	0.736	0.821	0.883	0.967	1.051	1.136	1.220	1.304	1.388	1.473	1.557	1.641
84	1.58	2.48	3.39	4.30	5.20	6.11	7.02	7.93	8.83	9.50	10.41	11.32	12.22	13.13	14.04	14.95	15.85	16.76	17.67
2438	0.188	0.297	0.405	0.513	0.622	0.730	0.838	0.947	1.055	1.135	1.243	1.352	1.460	1.568	1.677	1.785	1.894	2.002	2.110
96	2.03	3.19	4.36	5.53	6.69	7.86	9.02	10.19	11.36	12.22	13.38	14.55	15.72	16.88	18.05	19.22	20.38	21.55	22.71
2743	0.209	0.330	0.450	0.570	0.691	0.811	0.932	1.052	1.172	1.261	1.382	1.502	1.622	1.743	1.863	1.984	2.104	2.224	2.345
108	2.25	3.55	4.84	6.14	7.44	8.73	10.03	11.32	12.62	13.58	14.87	16.17	17.46	18.76	20.05	21.35	22.65	23.94	25.24
3048	0.230	0.363	0.495	0.627	0.760	0.892	1.025	1.157	1.290	1.387	1.520	1.652	1.785	1.917	2.049	2.182	2.314	2.447	2.579
120	2.48	3.90	5.33	6.75	8.18	9.60	11.03	12.46	13.88	14.93	16.36	17.78	19.21	20.63	22.06	23.49	24.91	26.34	27.76

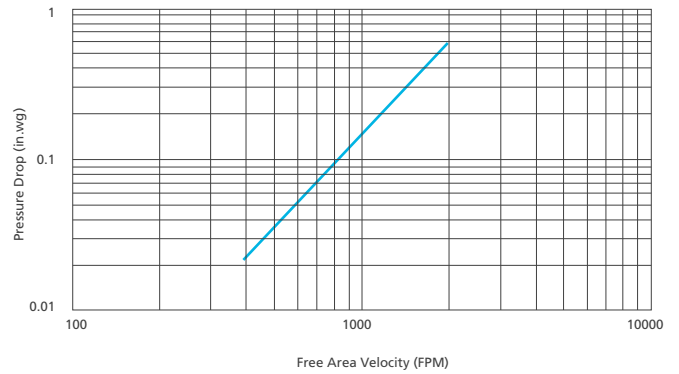
Free Area is in Sqr.meter and Sqr.ft.

Pressure Drop Vs Free Area Velocity (Intake)



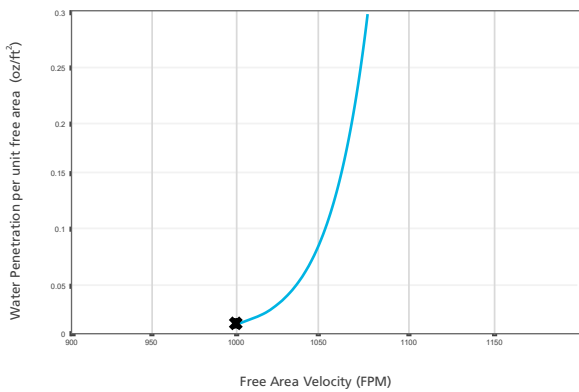
In accordance with ANSI/AMCA 500-L standard, Figure 5.5.

Pressure Drop Vs Free Area Velocity (Exhaust)



In accordance with ANSI/AMCA 500-L standard, Figure 5.5.

Water Penetration of ACL -600



Beginning of water penetration per AMCA publication 511 section 8.3.2 based on measured free area is 1000.2 FPM



Century Mechanical Systems Factory LLC certifies that the Model: ACL-600 shown herein is 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 Certified Ratings Seal applies to water penetration, air performance and sound ratings only

Ordering Requisites | Acoustic Louvers

1. Type	Acoustic Louver 150mm	●—————●	ACL-150
	Acoustic Louver 300mm	●—————●	ACL-300
	Acoustic Louver 600mm	●—————●	ACL-600
2. Size	Face Width	●—————●	in mm
	Face Height	●—————●	in mm
3. Bird Screen	Galvanized bird screen	●—————●	GI
	Aluminum bird screen	●—————●	AL
	Stainless steel bird screen	●—————●	SS
4. Number of Units		●—————●	In numbers

Note: The photos shown are only for illustration purpose. The actual product may vary. Please contact the technical/sales department for more information. As a part of continuous improvement, CMS reserve the right to make technical modifications without prior notice.

EXCELAIR

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