

THE QUIET ADVANTAGE

SOUND POWER LEVELS FOR THE DESIGN 51



KITURAMI – BUMYANG CHICAGO BLOWER Certifies that the Design 51 Airfoil Fans shown herein are licensed to bear the AMCA Seal. Ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Air performance ratings can be found in BC-D/51-02

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS

Application

Design 51 identifies Kiturami-Bumyang Chicago blower series of hollow bladed airfoil centrifugal fans, acknowledged as the most efficient fan type for clean air applications. The double width clean air applications. The double width configuration described boasts an enviable reputation for fan performance and reliability in a multitude of HVAC applications plus many industrial supply or exhaust systems.

Operating Range

Maximum CMM :	12,000
Maximum Static Pressure :	508 mmAq
Maximum Temperature :	150°
Fan Size :	135 to 807

Features

- High efficiency hollow bladed wheel
- Stable air flow over entire performance range
- Substantially lower sound levels
- Rigid bracing resists possible distortion from sudden airflow variations
- Smooth steep pressure curve ideal for VAV systems
- Spun steel wheel cone optimizes air flow
- AMCA certified for Air and Sound performance



Kiturami-Bumyang Air Condition co.,Ltd.certifies that the Design 51 Airfoil Fans shown herein are licensed to bear the AMCA Seal. Ratings shown are based on tests and precedures performed in accordance with AMCA Publication 211 and AMCA publicaiton 311 and comply with requirements of the AMCA Certified Ratings Program.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 135

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	1000	38	0.874	68	66	64	65	61	53	43	34	65
2		102	0.704	65	63	60	61	56	48	40	33	61
3		148	0.494	66	64	60	60	54	47	40	33	60
1	1200	55	1.049	75	70	72	70	66	59	50	40	71
2		146	0.845	72	68	67	66	62	54	46	39	67
3		214	0.593	73	68	68	66	60	52	46	39	66
1	1400	74	1.224	80	74	77	74	71	65	55	46	76
2		199	0.986	77	72	73	70	67	59	51	44	72
3		291	0.691	78	73	74	70	65	57	50	43	71
1	1600	97	1.399	82	79	80	76	75	69	60	51	79
2		260	1.127	80	77	76	72	70	63	56	48	75
3		380	0.790	80	78	77	72	69	62	55	48	74
1	1800	123	1.574	84	84	83	78	78	73	64	55	82
2		330	1.268	82	81	79	74	74	67	60	52	78
3		481	0.890	82	82	80	74	73	66	58	51	77
1	2000	152	1.749	86	88	85	81	81	76	68	58	85
2		407	1.409	84	85	82	78	77	71	63	56	81
3		594	0.989	84	86	83	78	76	69	62	55	81
1	2200	184	1.925	88	92	87	85	83	79	71	62	88
2		493	1.551	86	89	84	81	79	74	66	59	84
3		719	1.088	85	90	85	82	79	72	65	58	84
1	2400	219	2.100	89	95	89	89	86	82	74	65	91
2		586	1.692	87	92	87	84	82	77	69	61	87
3		856	1.188	86	93	87	85	81	75	68	61	87
1	2600	257	2.275	91	98	91	92	88	84	77	68	93
2		688	1.834	89	95	89	87	84	80	72	64	89
3		1005	1.287	88	96	89	89	84	78	70	63	90
1	2800	298	2.450	92	100	93	94	89	86	80	70	95
2		799	1.976	90	97	91	90	86	82	74	67	91
3		1166	1.387	89	98	92	91	86	80	73	65	92
1	3000	342	2.626	93	101	96	96	91	88	82	73	97
2		917	2.118	92	98	93	92	87	84	76	69	93
3		1340	1.487	90	99	94	93	87	82	75	68	94
1	3600	492	3.152	96	104	103	100	94	93	88	79	101
2		1323	2.545	95	102	100	96	90	89	83	75	98
3		1933	1.788	93	102	101	97	90	88	81	73	98

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B:free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 150

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	1000	46	1.169	71	70	68	68	64	56	46	37	69
2		123	0.941	69	67	64	64	59	51	43	36	64
3		180	0.660	70	68	64	63	57	50	43	36	63
1	1200	66	1.403	78	74	75	73	69	62	53	43	74
2		178	1.129	75	71	71	69	65	57	49	42	70
3		259	0.792	76	72	71	69	63	55	48	42	69
1	1400	90	1.637	84	78	80	77	74	68	58	49	79
2		242	1.318	81	76	76	73	70	62	54	47	75
3		353	0.924	82	76	77	73	68	60	53	46	74
1	1600	118	1.871	86	83	83	79	78	72	63	53	82
2		316	1.507	83	81	79	76	73	66	59	51	78
3		461	1.057	84	81	80	75	72	65	58	51	78
1	1800	149	2.105	88	87	86	81	81	76	67	58	85
2		400	1.695	86	85	82	78	77	70	63	55	81
3		584	1.189	86	86	83	77	76	69	61	54	81
1	2000	184	2.339	90	91	88	85	84	79	71	61	88
2		494	1.884	88	89	85	81	80	74	66	58	84
3		721	1.322	87	90	86	81	79	72	65	58	84
1	2200	223	2.573	91	95	91	88	86	82	74	65	91
2		598	2.073	89	92	88	84	82	77	69	62	87
3		873	1.455	89	93	88	85	82	75	68	61	87
1	2400	265	2.807	93	98	92	92	89	85	77	68	94
2		712	2.263	91	95	90	88	85	80	72	64	90
3		1039	1.588	90	96	91	88	84	78	71	64	90
1	2600	311	3.041	94	101	94	95	91	87	80	71	96
2		836	2.452	93	98	92	91	87	83	75	67	92
3		1220	1.722	91	99	93	92	87	81	73	66	93
1	2800	361	3.276	96	103	96	97	92	89	83	73	99
2		970	2.642	94	101	94	93	89	85	77	69	95
3		1416	1.855	92	101	95	94	88	83	75	68	95
1	3000	415	3.510	97	105	99	99	94	91	85	76	100
2		1114	2.832	95	102	97	95	90	87	79	72	96
3		1627	1.989	94	103	98	96	90	85	78	71	97
1	3600	598	4.214	100	108	106	103	97	96	91	82	105
2		1607	3.405	98	105	103	99	93	92	85	78	101
3		2349	2.393	97	105	104	101	93	91	84	76	102

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 165

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	900	46	1.443	71	71	68	69	64	55	46	36	69
2		123	1.161	69	68	64	64	58	51	43	36	65
3		180	0.814	70	69	64	63	57	50	43	36	64
1	1000	57	1.603	75	74	71	71	67	59	50	40	72
2		152	1.290	73	71	67	67	62	54	47	39	68
3		222	0.905	74	71	67	66	60	53	46	39	67
1	1200	82	1.924	82	78	78	76	73	66	56	46	78
2		219	1.549	79	75	74	73	68	60	53	45	73
3		320	1.086	80	76	75	72	66	59	52	45	73
1	1400	111	2.244	88	82	84	80	77	71	62	52	82
2		299	1.808	85	80	80	77	73	65	58	50	78
3		436	1.268	86	80	81	76	71	64	57	50	78
1	1600	145	2.565	90	87	87	83	81	75	66	57	85
2		390	2.066	87	84	83	79	77	70	62	54	81
3		569	1.450	88	85	84	79	75	68	61	54	81
1	1800	184	2.886	92	91	90	85	84	79	70	61	88
2		494	2.326	90	89	86	81	80	74	66	58	84
3		721	1.632	90	90	87	81	79	72	65	58	84
1	2000	227	3.207	94	95	92	88	87	82	74	65	91
2		610	2.585	92	93	89	84	83	77	69	62	88
3		890	1.814	91	94	90	84	82	75	68	61	87
1	2200	275	3.528	96	99	94	92	90	85	78	68	94
2		738	2.845	93	96	91	88	86	80	72	65	91
3		1078	1.997	93	97	92	88	85	79	71	64	90
1	2400	327	3.850	97	102	96	95	92	88	81	71	97
2		879	3.105	95	99	93	91	88	83	75	68	93
3		1284	2.180	94	100	94	92	87	81	74	67	93
1	2600	384	4.171	98	105	98	98	94	90	83	74	100
2		1032	3.365	97	102	96	94	90	86	78	70	96
3		1508	2.363	95	103	96	95	90	84	76	69	96
1	2800	446	4.493	100	107	100	101	96	93	86	77	102
2		1198	3.626	98	104	98	96	92	88	80	73	98
3		1750	2.547	96	105	99	98	92	86	79	72	98
1	3000	512	4.815	101	109	103	102	97	94	88	79	104
2		1376	3.888	99	106	100	98	93	90	83	75	100
3		2011	2.731	98	106	101	99	93	89	81	74	100
1	3600	738	5.7814	104	112	110	106	100	99	94	85	108
2		1986	4.6747	102	109	107	103	96	95	89	81	105
3		2904	3.2872	101	109	108	104	96	94	87	80	105

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWIA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 182

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	800	44	1.708	71	72	69	68	63	54	45	35	69
2		118	1.375	68	68	65	64	57	50	42	35	64
3		172	0.964	69	69	65	63	56	49	42	35	63
1	900	56	1.921	75	75	71	72	66	58	49	39	72
2		149	1.547	73	71	67	68	61	54	46	38	68
3		218	1.085	73	72	67	66	60	52	45	38	67
1	1000	69	2.135	79	77	74	75	70	62	52	43	75
2		184	1.719	76	74	71	70	65	57	50	42	71
3		269	1.205	77	75	71	70	63	56	49	42	70
1	1200	99	2.562	86	81	82	79	76	68	59	49	81
2		265	2.063	83	79	77	76	71	63	55	48	76
3		387	1.447	84	79	78	75	69	62	55	48	76
1	1400	135	2.989	91	85	87	83	80	74	64	55	85
2		361	2.408	88	83	83	80	76	68	61	53	81
3		527	1.689	89	84	84	79	74	67	60	53	81
1	1600	176	3.416	94	90	90	86	84	78	69	60	88
2		472	2.753	91	88	86	82	80	73	65	57	84
3		689	1.931	91	89	87	82	78	71	64	57	84
1	1800	223	3.844	96	95	93	88	87	82	73	64	91
2		598	3.098	93	92	89	84	83	77	69	61	87
3		873	2.174	93	93	90	84	82	75	68	61	87
1	2000	275	4.272	97	99	95	91	90	85	77	68	94
2		739	3.444	95	96	92	87	86	80	72	65	91
3		1078	2.417	95	97	93	87	85	78	71	64	90
1	2200	333	4.700	99	102	97	95	92	88	80	71	97
2		894	3.790	97	100	94	91	89	83	75	68	94
3		1306	2.661	96	101	95	91	88	81	74	67	94
1	2400	396	5.128	101	106	99	98	95	91	84	74	100
2		1065	4.137	99	103	97	94	91	86	78	71	96
3		1555	2.905	98	104	98	95	90	84	77	70	97
1	2600	465	5.556	102	109	101	101	97	93	86	77	103
2		1251	4.485	100	106	99	97	93	89	81	73	99
3		1827	3.150	99	107	100	98	93	87	79	72	99
1	2800	540	5.985	103	111	103	104	99	95	89	79	105
2		1452	4.833	102	108	101	99	95	91	83	76	101
3		2121	3.396	100	109	102	101	95	89	82	75	102
1	3000	620	6.414	104	112	106	105	100	97	91	82	107
2		1668	5.182	103	109	104	101	96	93	86	78	103
3		2438	3.642	101	110	104	102	96	91	84	77	103

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWIA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.



DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 200

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	800	54	2.3067	74	76	72	72	66	57	48	38	72
2		144	1.8571	72	72	69	67	60	53	45	38	68
3		210	1.3024	73	73	68	66	59	52	45	38	67
1	900	68	2.5951	79	78	74	75	70	61	52	42	75
2		182	2.0895	76	75	71	71	64	57	49	42	71
3		266	1.4655	77	76	70	69	63	55	49	42	70
1	1000	84	2.8836	83	81	78	78	73	65	56	46	78
2		225	2.3221	80	78	74	74	68	60	53	45	74
3		329	1.6287	81	78	74	73	66	59	52	45	73
1	1200	121	3.4607	90	85	85	83	79	72	62	52	84
2		324	2.7874	87	82	81	79	74	66	59	51	80
3		473	1.9554	88	83	81	78	72	65	58	51	79
1	1400	165	4.0380	95	89	91	86	83	77	67	58	88
2		442	3.2533	92	87	86	83	79	71	64	56	84
3		645	2.2826	93	87	87	82	77	70	63	56	84
1	1600	215	4.6155	97	94	94	89	87	81	72	63	92
2		577	3.7197	95	92	90	85	83	76	68	60	88
3		843	2.6104	95	92	91	85	81	74	67	60	87
1	1800	272	5.1933	99	98	96	91	90	85	76	67	95
2		731	4.1869	97	96	93	87	86	80	72	64	91
3		1067	2.9389	97	97	94	87	85	78	71	64	90
1	2000	336	5.7714	101	102	99	94	93	88	80	71	98
2		903	4.6548	99	100	95	90	89	83	75	68	94
3		1319	3.2681	99	101	96	90	88	81	74	67	94
1	2200	407	6.3498	103	106	101	98	96	91	84	74	101
2		1094	5.1236	101	103	98	94	92	86	78	71	97
3		1597	3.5982	100	104	99	94	91	85	77	70	97
1	2400	485	6.9286	104	109	103	101	98	94	87	77	103
2		1303	5.5933	103	106	100	97	94	89	81	74	100
3		1903	3.9293	101	107	101	98	94	87	80	73	100
1	2600	569	7.5077	106	112	104	105	100	96	89	80	106
2		1530	6.0641	104	109	102	100	96	92	84	76	102
3		2236	4.2614	103	110	103	101	96	90	82	75	103
1	2800	660	8.0873	107	114	107	107	102	99	92	83	108
2		1776	6.5360	105	111	104	102	98	94	86	79	104
3		2596	4.5946	104	112	105	104	98	92	85	78	105
1	3000	758	8.6674	108	116	109	108	103	100	94	85	110
2		2041	7.0091	107	113	107	104	99	96	89	81	106
3		2984	4.9291	105	113	108	106	99	94	87	80	107

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWIA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.



DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 222

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	800	65	3.036	78	79	75	74	69	60	50	41	75
2		173	2.444	75	75	72	70	63	56	48	40	70
3		252	1.714	76	76	71	69	62	54	48	41	69
1	900	82	3.415	82	82	77	78	72	64	55	45	78
2		219	2.750	80	78	74	74	67	59	52	44	74
3		320	1.929	80	79	73	72	65	58	51	44	73
1	1000	101	3.795	86	84	81	81	76	68	58	49	81
2		271	3.056	84	81	77	76	71	63	55	48	77
3		395	2.144	84	82	77	76	69	62	55	48	76
1	1200	145	4.554	93	88	88	85	81	74	65	55	87
2		390	3.669	90	86	84	82	77	69	61	54	83
3		569	2.574	91	86	84	81	75	67	60	53	82
1	1400	198	5.314	98	92	94	89	86	80	70	61	91
2		531	4.282	95	90	89	86	82	74	66	59	87
3		775	3.005	96	91	90	85	80	72	65	58	87
1	1600	258	6.074	101	97	97	92	90	84	75	65	95
2		694	4.897	98	95	93	88	85	78	71	63	91
3		1013	3.437	99	96	94	88	84	77	70	63	90
1	1800	327	6.835	103	102	99	94	93	88	79	70	97
2		878	5.512	100	99	96	90	89	82	75	67	94
3		1283	3.870	100	100	97	90	88	81	73	66	93
1	2000	404	7.596	105	106	102	97	96	91	83	73	100
2		1085	6.129	102	103	98	93	92	86	78	70	97
3		1585	4.304	102	104	99	93	91	84	77	70	97
1	2200	489	8.358	106	109	104	101	98	94	86	77	103
2		1314	6.747	104	106	101	97	94	89	81	74	100
3		1920	4.740	103	107	102	97	94	87	80	73	100
1	2400	582	9.120	108	112	106	104	101	97	89	80	106
2		1566	7.367	106	110	103	100	97	92	84	76	102
3		2288	5.177	105	111	104	101	96	90	82	75	103
1	2600	684	9.883	109	116	107	107	103	99	92	83	109
2		1839	7.988	107	113	105	103	99	95	87	79	105
3		2689	5.616	106	114	106	104	99	93	85	78	106
1	2800	793	10.646	110	118	110	110	105	101	95	85	111
2		2136	8.611	109	115	107	105	101	97	89	81	107
3		3123	6.057	107	116	108	107	101	95	87	80	108

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 245

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	700	66	3.836	72	76	70	66	63	58	51	44	69
2		180	2.987	69	72	68	63	59	54	49	43	66
3		251	2.144	68	72	66	61	57	52	47	42	64
1	800	87	4.384	73	82	74	69	67	62	55	48	73
2		236	3.414	72	76	72	67	63	58	53	47	70
3		328	2.451	70	77	70	65	60	56	51	46	68
1	900	110	4.932	76	85	77	73	70	66	59	52	76
2		298	3.842	75	80	75	70	66	62	56	51	73
3		415	2.758	73	80	73	69	64	59	54	49	71
1	1000	136	5.480	80	86	81	76	73	69	62	55	79
2		368	4.270	79	82	78	73	69	65	59	54	76
3		513	3.065	77	82	76	72	67	62	57	52	74
1	1200	195	6.578	88	89	88	82	77	74	68	61	84
2		531	5.126	86	86	84	79	74	70	65	59	81
3		739	3.681	83	85	83	78	72	67	63	58	80
1	1400	266	7.676	94	91	94	86	81	78	73	66	89
2		723	5.985	91	89	90	84	78	74	69	64	86
3		1007	4.298	88	88	89	82	77	72	67	62	85
1	1600	348	8.774	99	93	99	91	85	82	77	70	94
2		945	6.845	96	91	94	88	82	78	73	68	90
3		1317	4.917	93	90	95	86	80	76	71	66	89
1	1800	440	9.874	103	96	103	94	88	85	81	74	97
2		1198	7.707	99	95	98	91	85	82	77	71	93
3		1669	5.539	96	93	98	89	84	79	74	69	93
1	2000	543	10.974	104	100	104	97	91	88	84	77	100
2		1480	8.571	101	98	100	94	89	84	80	74	96
3		2063	6.162	98	96	100	93	87	82	77	72	95
1	2200	658	12.076	106	104	106	101	94	90	86	80	102
2		1793	9.439	103	102	102	98	92	87	83	77	99
3		2500	6.788	99	100	101	96	90	85	80	75	98
1	2400	783	13.178	108	107	107	104	97	93	89	83	105
2		2136	10.308	104	105	103	101	95	89	85	80	101
3		2980	7.417	101	102	103	100	93	87	82	78	100

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 270

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	600	59	4.394	74	74	69	65	62	56	49	42	67
2		161	3.422	70	71	66	62	58	53	47	41	64
3		224	2.456	70	70	65	60	56	51	46	41	63
1	700	81	5.127	76	80	74	69	66	61	54	47	72
2		219	3.993	73	76	71	66	62	57	52	46	69
3		305	2.866	73	76	70	65	60	55	50	45	67
1	800	105	5.860	78	86	78	73	70	65	58	51	76
2		286	4.564	76	80	75	70	66	61	56	50	73
3		398	3.276	75	82	74	68	64	59	54	49	72
1	900	133	6.593	80	89	81	76	73	69	62	55	80
2		362	5.136	79	84	78	73	69	65	59	54	76
3		504	3.687	77	85	77	72	67	62	58	53	75
1	1000	165	7.326	84	90	84	79	76	72	65	58	82
2		447	5.708	83	86	81	77	72	68	62	57	79
3		623	4.098	81	86	80	75	70	65	61	56	78
1	1200	237	8.793	91	93	91	85	80	77	71	64	88
2		645	6.855	89	89	87	82	77	73	68	62	84
3		898	4.923	87	89	87	81	75	71	66	61	83
1	1400	323	10.261	97	95	97	90	84	81	76	69	93
2		878	8.003	95	92	93	87	81	77	72	67	89
3		1223	5.749	92	91	93	86	80	75	70	65	88
1	1600	422	11.730	103	96	103	94	88	85	80	73	97
2		1148	9.155	100	95	97	91	85	81	76	71	93
3		1600	6.579	96	93	99	90	83	79	74	69	93
1	1800	534	13.201	106	99	106	97	91	88	84	77	100
2		1455	10.310	103	98	101	94	88	85	80	74	96
3		2027	7.412	99	96	102	93	87	82	77	73	96
1	2000	660	14.673	108	103	107	100	94	91	87	80	103
2		1798	11.469	105	102	103	97	92	87	83	77	99
3		2507	8.248	101	99	104	96	90	85	81	76	98
1	2200	799	16.147	110	107	108	104	97	93	89	83	105
2		2179	12.632	106	105	104	100	95	90	86	80	102
3		3039	9.089	103	103	105	100	93	88	83	78	101
1	2400	951	17.623	111	110	110	107	100	95	92	86	108
2		2597	13.800	108	108	106	103	97	92	88	83	104
3		3624	9.934	104	105	106	103	96	90	86	81	104

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.



DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 300

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	500	50	4.896	75	70	66	63	59	53	46	39	65
2		136	3.813	70	68	64	60	56	50	45	39	62
3		189	2.736	71	66	62	58	53	48	44	39	60
1	600	72	5.876	77	78	72	68	65	59	52	45	71
2		195	4.576	74	74	69	65	61	56	50	44	67
3		272	3.285	74	74	68	63	58	54	49	44	66
1	700	98	6.856	79	84	77	72	69	64	57	50	75
2		266	5.340	77	79	74	69	65	60	55	49	72
3		370	3.833	76	80	73	68	63	58	53	48	71
1	800	128	7.836	81	89	81	76	73	68	61	54	79
2		347	6.105	80	84	78	73	69	64	59	53	76
3		484	4.382	78	85	77	71	67	62	57	52	75
1	900	162	8.817	84	92	84	79	76	72	65	58	83
2		440	6.870	83	87	81	76	72	68	62	56	79
3		612	4.932	81	88	80	75	70	65	60	56	78
1	1000	200	9.797	88	94	87	82	79	75	68	61	85
2		543	7.636	86	89	84	80	75	71	65	60	82
3		756	5.483	84	90	83	78	73	68	64	59	81
1	1200	288	11.760	95	96	94	88	83	80	74	67	91
2		783	9.170	93	93	91	85	80	76	71	65	87
3		1090	6.587	90	92	90	84	78	74	69	64	86
1	1400	392	13.724	101	98	100	93	87	84	79	72	96
2		1066	10.709	98	96	96	90	84	80	75	70	92
3		1486	7.695	95	95	96	89	83	78	73	68	91
1	1600	512	15.690	106	100	106	97	91	88	83	76	100
2		1395	12.253	103	98	100	94	88	84	79	74	96
3		1944	8.807	100	97	102	93	86	82	77	72	96
1	1800	649	17.658	110	102	109	100	94	91	87	80	103
2		1767	13.801	106	101	104	97	91	87	83	77	99
3		2465	9.925	103	99	105	96	90	85	80	76	99
1	2000	801	19.629	112	107	110	103	97	94	90	83	106
2		2185	15.357	108	105	106	100	95	90	86	80	102
3		3049	11.049	105	103	107	99	93	88	83	79	102

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 330

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	38	5.233	80	84	76	73	69	61	52	42	75
2		104	4.050	79	83	76	72	67	61	52	44	74
3		141	2.882	78	82	75	71	66	59	51	42	73
1	500	59	6.542	83	93	82	79	75	69	60	50	82
2		162	5.063	81	91	82	78	74	68	60	52	81
3		221	3.604	80	91	80	77	72	67	58	50	80
1	600	84	7.851	84	96	87	85	80	76	66	56	87
2		233	6.077	83	94	87	84	79	74	66	58	86
3		318	4.326	82	94	85	83	77	73	64	56	85
1	700	115	9.161	89	97	94	89	84	80	72	62	91
2		317	7.092	88	96	93	88	83	79	71	63	90
3		433	5.049	87	95	93	87	82	77	69	61	89
1	800	150	10.470	93	99	101	92	88	84	76	67	96
2		415	8.108	93	97	99	91	87	82	76	67	95
3		565	5.773	92	96	99	90	86	81	74	66	94
1	900	190	11.781	97	100	106	95	91	87	80	71	100
2		525	9.125	97	98	105	94	90	86	80	71	99
3		716	6.497	96	97	104	93	89	84	78	70	98
1	1000	235	13.091	101	101	109	98	94	90	84	75	103
2		648	10.143	100	99	108	97	94	89	83	75	102
3		884	7.223	99	98	107	96	93	87	82	73	101
1	1200	338	15.715	106	103	112	103	100	95	91	81	107
2		935	12.184	106	102	111	102	99	94	89	81	106
3		1275	8.679	105	100	110	101	98	93	88	79	105
1	1400	460	18.340	109	108	114	110	104	99	95	87	111
2		1274	14.231	109	107	112	109	103	98	94	86	110
3		1738	10.141	108	105	112	108	102	97	92	85	109
1	1600	602	20.969	111	112	115	116	107	103	99	91	115
2		1666	16.285	111	111	114	115	106	102	97	91	114
3		2274	11.610	110	110	113	114	105	101	96	89	114
1	1800	762	23.602	113	116	116	122	110	107	102	96	120
2		2112	18.349	113	115	115	120	110	106	101	95	119
3		2884	13.087	112	114	114	120	108	105	99	93	118

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 365

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	45	6.937	84	87	79	76	71	64	54	45	78
2		125	5.369	82	86	79	75	70	63	55	47	77
3		170	3.821	81	85	78	74	69	62	53	45	76
1	500	71	8.673	86	96	85	82	78	72	62	53	85
2		195	6.713	84	94	85	81	76	71	63	54	84
3		266	4.778	83	94	83	80	75	69	61	53	83
1	600	102	10.408	88	99	90	87	83	78	69	59	90
2		281	8.057	86	97	90	87	82	77	69	60	89
3		383	5.736	85	97	88	86	80	75	67	59	88
1	700	139	12.144	92	101	97	91	87	83	74	65	94
2		383	9.404	92	99	96	91	86	81	74	66	93
3		522	6.695	90	98	96	90	85	80	72	64	92
1	800	181	13.881	97	102	104	95	91	87	79	70	99
2		500	10.751	96	100	102	94	90	85	78	70	97
3		682	7.655	95	99	102	93	89	84	77	68	97
1	900	229	15.618	100	103	109	98	94	90	83	74	103
2		634	12.101	100	101	108	97	93	89	82	74	102
3		864	8.617	99	100	107	96	92	87	81	72	101
1	1000	283	17.356	104	104	112	101	97	93	87	77	106
2		783	13.452	103	102	111	100	96	92	86	78	105
3		1068	9.581	102	101	110	99	95	90	84	76	104
1	1200	408	20.835	110	106	115	105	103	98	94	84	110
2		1129	16.161	109	105	114	105	102	97	92	84	109
3		1540	11.515	108	103	113	104	101	95	90	82	108
1	1400	556	24.318	112	111	117	113	107	102	98	89	114
2		1538	18.881	112	110	115	112	106	101	96	89	113
3		2100	13.459	111	109	115	111	105	100	95	87	112
1	1600	726	27.807	115	115	118	119	110	106	102	94	118
2		2013	21.613	114	114	117	118	109	105	100	93	117
3		2748	15.414	113	113	116	117	108	104	99	92	116

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 402

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	52	9.790	80	79	74	72	66	58	50	41	73
2		150	7.618	78	78	72	69	63	56	48	39	70
3		216	5.493	75	74	69	66	61	53	46	38	68
1	500	81	12.238	87	86	80	77	74	66	57	49	79
2		235	9.525	85	84	78	75	70	63	55	47	77
3		337	6.869	82	81	75	72	68	61	53	45	74
1	600	116	14.687	92	89	85	81	80	72	63	55	84
2		338	11.434	91	87	84	79	76	69	61	53	82
3		486	8.246	89	84	80	76	74	66	59	51	79
1	700	158	17.137	96	93	91	86	84	77	69	60	89
2		460	13.345	94	92	89	83	81	74	66	58	86
3		662	9.627	92	89	86	80	78	71	64	56	83
1	800	206	19.588	98	98	95	89	87	81	73	65	93
2		602	15.259	97	96	94	87	84	78	71	63	90
3		865	11.009	94	93	90	84	82	76	68	61	87
1	900	261	22.041	100	101	100	93	90	85	77	69	96
2		762	17.176	99	100	98	91	87	82	74	67	94
3		1096	12.395	97	97	95	88	84	80	72	65	91
1	1000	322	24.494	102	105	102	96	92	89	81	72	99
2		941	19.096	100	103	100	94	90	85	78	70	97
3		1354	13.784	98	100	97	91	87	83	76	68	94
1	1200	465	29.406	105	110	105	101	97	95	87	78	104
2		1358	22.947	104	109	104	99	94	91	84	76	102
3		1954	16.575	102	107	101	96	91	89	82	74	99
1	1400	633	34.324	108	114	109	106	101	99	92	84	108
2		1851	26.817	106	112	108	104	98	96	89	81	106
3		2666	19.383	104	110	105	101	95	93	87	79	103

The sound power level ratings shown are in decibels referred to 10-12 watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.



DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 445

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	63	13.137	83	82	77	75	69	61	53	44	76
2		183	10.224	81	81	75	72	66	59	51	42	73
3		263	7.372	79	77	72	69	64	56	49	41	71
1	500	98	16.423	90	89	83	80	77	69	60	52	82
2		286	12.784	88	87	82	78	73	66	58	50	80
3		410	9.219	86	84	78	75	71	64	56	48	77
1	600	141	19.711	96	93	88	84	83	75	66	58	87
2		411	15.347	94	91	87	82	79	72	64	56	85
3		591	11.070	92	88	83	79	77	69	62	54	82
1	700	192	22.999	99	97	94	89	87	80	72	63	92
2		560	17.914	98	95	92	86	84	77	69	61	89
3		806	12.924	96	92	89	83	81	74	67	59	86
1	800	251	26.290	102	101	98	92	90	84	76	68	96
2		732	20.486	100	99	97	90	87	81	74	66	93
3		1053	14.783	98	96	93	87	85	79	71	64	90
1	900	318	29.582	104	104	103	96	93	88	80	72	99
2		928	23.062	102	103	101	94	90	85	77	70	97
3		1334	16.647	100	100	98	91	87	83	75	68	94
1	1000	392	32.876	106	108	105	99	95	92	84	75	102
2		1146	25.643	104	106	103	97	93	88	81	73	100
3		1649	18.516	102	104	100	94	90	86	79	71	97
1	1200	565	39.472	109	114	109	104	99	98	90	81	107
2		1653	30.824	107	112	107	102	97	94	87	79	105
3		2380	22.273	105	110	104	99	94	92	84	77	102

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.



DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 490

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	77	17.734	87	86	80	78	72	64	56	47	79
2		223	13.802	85	84	78	75	69	62	54	45	76
3		321	9.953	82	81	75	73	67	59	52	44	74
1	500	120	22.170	94	93	86	83	80	72	63	55	85
2		349	17.260	92	91	85	81	76	69	61	53	83
3		501	12.449	89	88	81	78	74	67	59	51	80
1	600	172	26.609	99	96	92	88	86	78	69	61	90
2		503	20.723	98	94	90	85	82	75	67	59	88
3		723	14.949	96	91	87	82	80	72	65	57	85
1	700	235	31.050	103	100	97	92	90	83	75	66	95
2		685	24.192	101	98	95	89	87	80	72	64	92
3		985	17.456	99	95	92	86	84	78	70	62	90
1	800	307	35.493	105	104	102	95	93	87	79	71	99
2		895	27.668	104	102	100	93	90	84	77	69	96
3		1287	19.971	102	100	97	90	88	82	75	67	94
1	900	388	39.940	107	108	106	99	96	91	83	75	102
2		1134	31.151	106	106	104	97	93	88	80	73	100
3		1631	22.493	104	103	101	94	90	86	78	71	97
1	1000	479	44.390	109	111	108	102	98	95	87	78	105
2		1401	34.644	107	109	107	100	96	91	84	76	103
3		2017	25.024	105	107	104	97	93	89	82	74	100
1	1200	691	53.302	112	117	112	107	103	101	93	84	110
2		2022	41.660	111	115	110	105	100	97	90	82	108
3		2913	30.119	109	113	107	102	97	95	88	80	105

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 542

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	93	23.716	90	89	83	81	75	67	59	50	82
2		271	18.460	88	87	81	78	72	65	57	48	79
3		389	13.313	85	84	78	76	70	62	55	47	77
1	500	145	29.650	97	96	89	86	83	75	66	58	88
2		424	23.087	95	94	88	84	79	72	64	56	86
3		609	16.653	93	91	84	81	77	70	62	54	83
1	600	209	35.587	103	99	95	90	89	81	72	64	93
2		610	27.722	101	97	93	88	85	78	70	62	91
3		878	20.002	99	94	90	85	83	75	68	60	88
1	700	285	41.528	106	103	100	95	93	86	78	69	98
2		832	32.367	105	101	98	92	90	83	75	67	95
3		1196	23.360	103	98	95	89	87	80	73	65	93
1	800	372	47.473	109	107	105	98	96	90	82	74	102
2		1087	37.023	107	105	103	96	93	87	80	72	99
3		1564	26.731	105	103	100	93	91	85	77	70	97
1	900	471	53.423	111	111	109	102	99	94	86	78	105
2		1377	41.692	109	109	107	100	96	91	83	76	103
3		1982	30.114	107	107	104	97	93	89	81	74	100
1	1000	582	59.379	112	114	111	105	101	98	90	81	108
2		1703	46.375	111	112	110	103	98	94	87	79	106
3		2451	33.513	109	110	107	100	96	92	85	77	103

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.

DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 600

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	114	32.129	93	92	86	84	78	70	62	53	85
2		332	25.012	92	90	84	81	75	68	60	51	82
3		477	18.039	89	87	81	79	73	65	58	50	80
1	500	178	40.170	100	99	93	89	86	78	69	61	91
2		519	31.285	99	97	91	87	82	75	67	59	89
3		746	22.570	96	94	87	84	80	73	65	57	86
1	600	256	48.215	106	102	98	94	92	84	75	67	97
2		748	37.572	105	100	96	91	88	81	73	65	94
3		1075	27.114	102	97	93	88	86	79	71	63	91
1	700	349	56.267	110	106	103	98	96	89	81	72	101
2		1019	43.874	108	104	101	95	93	86	78	70	98
3		1466	31.674	106	101	98	92	90	84	76	68	96
1	800	456	64.326	112	110	108	101	99	93	85	77	105
2		1332	50.195	110	109	106	99	96	90	83	75	103
3		1917	36.254	108	106	103	96	94	88	81	73	100
1	900	577	72.394	114	114	112	105	102	97	89	81	108
2		1688	56.537	112	112	110	103	99	94	86	79	106
3		2431	40.855	110	110	107	100	96	92	84	77	103
1	1000	713	80.471	116	117	115	108	104	101	93	84	111
2		2087	62.904	114	116	113	106	102	97	90	82	109
3		3007	45.482	112	113	110	103	99	95	88	80	106

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.



DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 660

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	139	43.589	97	95	89	87	81	73	65	56	88
2		407	33.940	95	94	87	84	78	71	63	54	86
3		585	24.480	92	90	84	82	76	69	61	53	83
1	500	218	54.499	104	102	96	92	89	81	72	64	95
2		636	42.458	102	100	94	90	85	78	70	62	92
3		915	30.635	100	97	91	87	83	76	68	60	89
1	600	314	65.419	110	105	101	97	95	87	78	70	100
2		917	50.998	108	104	99	94	91	84	76	68	97
3		1319	36.811	106	100	96	91	89	82	74	66	94
1	700	428	76.348	113	109	106	101	99	92	84	75	104
2		1250	59.565	112	108	104	99	96	89	81	73	102
3		1798	43.016	110	105	101	96	93	87	79	71	99
1	800	559	87.290	115	114	111	105	102	97	88	80	108
2		1634	68.163	114	112	109	103	99	93	86	78	106
3		2353	49.252	112	109	106	99	97	91	84	76	103
1	900	708	98.246	117	117	115	108	105	101	92	84	112
2		2072	76.796	116	116	113	106	102	97	90	82	109
3		2984	55.525	114	113	110	103	99	95	87	80	106

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.



DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 730

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	169	57.878	100	98	92	90	84	76	68	59	91
2		491	45.074	98	97	90	87	81	74	66	57	88
3		707	32.516	96	93	87	85	79	71	64	56	86
1	500	263	72.369	107	105	99	95	92	84	75	67	98
2		769	56.396	105	103	97	93	88	81	73	65	95
3		1106	40.699	103	100	93	90	86	79	71	63	92
1	600	380	86.873	113	108	104	100	98	90	81	73	103
2		1108	67.754	111	107	102	97	94	87	79	71	100
3		1595	48.920	109	103	99	94	92	84	77	69	97
1	700	517	101.39	116	112	109	104	102	95	87	78	107
2		1511	79.154	115	111	107	101	99	92	84	76	104
3		2175	57.184	113	108	104	98	96	90	82	74	102
1	800	676	115.94	119	117	114	107	105	99	91	83	111
2		1977	90.603	117	115	112	105	102	96	89	81	109
3		2847	65.499	115	112	109	102	100	94	86	79	106

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.



DESIGN 51 DOUBLE WIDTH AIRFOIL FANS SIZE 807

NO	RPM	Ps [Pa]	Q m ³ /s	SOUND POWER ref 10 ⁻¹² WATTS								LwiA [db]
				OCTAVE BAND								
				1	2	3	4	5	6	7	8	
1	400	206	78.353	103	102	95	93	87	79	71	62	94
2		602	61.036	102	100	93	90	84	77	69	60	92
3		865	44.037	99	97	90	88	82	75	67	59	89
1	500	322	97.977	110	108	102	98	95	87	78	70	101
2		941	76.384	109	107	100	96	91	84	76	68	98
3		1354	55.137	106	103	97	93	89	82	74	66	95
1	600	465	117.62	116	112	107	103	101	93	84	76	106
2		1358	91.790	115	110	105	100	97	90	82	74	103
3		1954	66.298	112	107	102	97	95	88	80	72	100
1	700	633	137.30	120	116	112	107	105	98	90	81	110
2		1851	107.27	118	114	110	105	102	95	87	79	108
3		2666	77.532	116	111	107	101	99	93	85	77	105

The sound power level ratings shown are in decibels referred to 10⁻¹² watts calculated per AMCA Standard 301. Values shown are for Lwi and LWiA sound power levels for installation type B: free inlet, ducted outlet. Ratings do not include the effects of duct end correction. The A-weighted sound ratings shown have been calculated per AMCA standard 301.