



ENGINEERING DATA

A20, A40 Curved Blade Series

Nominal Duct Size	Core Vel. (fpm)		100	200	300	400	500	600	700	800	900	1000
	Velocity Pressure		0.001	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.051	0.062
	Total Pressure		0.003	0.014	0.031	0.056	0.090	0.131	0.175	0.225	0.290	0.355

6x4	CFM					50	60	70	85	95	110	120
	Throw	2-Way				5-8-13	7-9-12	8-12-19	9-13-18	10-15-21	12-17-24	13-19-31
		1-Way				7-10-16	8-11-15	10-13-19	11-16-23	12-18-26	14-21-34	15-23-37
	NC					14	20	24	28	32	35	38

8x4	CFM				50	65	80	95	110	130	145	160
	Throw	2-Way			5-7-11	6-9-14	7-11-17	9-13-21	10-14-20	11-16-23	12-18-26	14-21-33
		1-Way			5-8-13	7-11-17	9-13-21	10-15-21	12-17-25	13-20-32	15-22-36	17-25-40
	NC				-	15	21	26	30	33	36	39

10x4 6x6	CFM				60	80	100	120	140	160	180	200
	Throw	4-Way			4-6-9	5-8-13	6-9-15	8-11-18	9-13-21	10-14-20	11-16-23	12-17-25
		3-Way			4-6-10	6-9-14	7-10-16	8-12-20	10-13-19	11-15-22	12-17-25	13-20-32
		2-Way			5-7-11	6-9-15	8-11-18	9-14-22	10-15-21	12-17-25	13-20-32	15-22-35
		1-Way			6-9-14	8-11-18	9-14-22	11-15-22	12-18-26	14-21-34	16-24-38	18-26-42
	NC				-	16	22	27	31	34	37	40

12x4 8x6	CFM			50	80	105	130	155	180	210	235	260
	Throw	4-Way		3-4-7	4-5-6	6-9-14	7-10-16	8-12-20	10-13-19	11-15-22	12-17-25	13-20-32
		3-Way		3-4-7	5-6-7	6-9-15	8-11-18	9-13-21	10-14-20	11-16-23	13-19-31	14-21-34
		2-Way		3-5-8	5-6-8	7-9-12	8-12-20	10-14-20	11-16-23	13-19-31	14-21-34	16-24-38
		1-Way		4-5-6	6-8-11	8-11-15	10-14-20	12-17-24	13-20-32	15-23-37	17-26-41	19-28-45
	NC			-	10	17	23	28	32	35	38	41

14x4	CFM			60	90	120	150	180	210	240	270	300
	Throw	4-Way		3-4-7	4-5-6	6-8-10	7-10-13	9-12-17	10-14-20	11-16-23	12-18-26	14-21-33
		3-Way		3-5-8	5-6-7	6-9-15	8-11-15	9-13-18	10-15-21	12-17-25	13-20-32	15-22-35
		2-Way		3-5-8	5-7-9	7-10-13	9-12-17	10-14-20	12-17-24	13-20-32	16-24-38	16-24-39
		1-Way		4-5-6	6-8-11	8-11-16	10-15-21	12-17-25	14-21-34	16-24-38	18-27-43	20-29-47
	NC			-	10	18	23	28	32	36	39	42

16x4 10x6 8x8	CFM			70	105	140	175	210	245	280	315	350
	Throw	4-Way		3-4-7	5-7-11	6-9-15	8-11-18	9-13-21	10-15-21	12-17-24	13-19-31	14-21-34
		3-Way		3-5-8	5-7-12	6-9-15	8-12-19	10-13-19	11-15-22	14-19-30	14-21-33	15-23-37
		2-Way		4-6-9	5-8-13	7-10-13	9-13-21	10-15-21	12-17-25	14-21-33	15-23-37	17-26-41
		1-Way		4-5-6	7-9-12	9-12-17	10-15-21	12-18-26	15-22-35	17-25-40	18-27-44	20-31-49
	NC			-	11	18	24	29	33	37	39	42

18x4 12x6	CFM			80	120	160	200	240	280	320	360	400
	Throw	4-Way		3-5-8	5-6-7	6-8-11	8-11-15	9-13-18	11-15-22	12-17-25	13-20-32	15-22-35
		3-Way		3-5-8	5-6-8	7-9-12	8-11-16	10-14-20	11-16-20	13-19-31	15-22-35	16-24-38
		2-Way		4-6-9	6-8-10	8-10-14	9-13-18	11-15-22	12-18-26	14-21-34	16-24-38	18-26-42
		1-Way		5-6-7	7-9-12	9-13-18	11-15-22	13-19-31	15-22-36	17-26-41	19-29-46	21-32-51
	NC			-	12	19	25	30	34	37	40	43

14x6 10x8	CFM			90	135	180	225	270	315	360	405	450
	Throw	4-Way		3-5-8	5-6-8	6-9-15	8-12-19	10-13-19	11-15-22	12-18-26	14-21-33	15-23-37
		3-Way		3-5-8	5-7-9	7-11-17	9-13-21	10-14-20	12-17-24	13-20-32	15-22-36	16-24-39
		2-Way		4-6-9	6-8-10	8-12-19	10-13-19	11-16-23	13-19-31	15-22-35	16-24-39	18-27-44
		1-Way		5-7-11	7-11-17	9-14-22	11-16-23	13-20-32	15-23-37	18-26-42	20-29-47	22-33-53
	NC			-	12	19	26	30	34	38	41	44

24x4 16x6 12x8	CFM		55	110	165	220	275	330	385	440	495	550
	Throw	4-Way	2-3-4	3-5-8	5-7-12	7-10-16	8-12-20	10-14-20	12-17-24	13-19-31	15-22-35	16-24-39
		3-Way	2-3-5	4-6-9	5-8-13	8-11-18	9-14-22	11-15-22	12-18-26	14-21-33	16-24-38	17-26-41
		2-Way	2-3-5	4-6-10	6-9-15	8-12-20	10-14-20	12-17-25	14-21-33	15-23-37	17-26-41	19-29-46
		1-Way	2-4-6	5-7-12	8-11-18	10-13-19	12-17-25	14-21-34	16-24-39	18-27-44	21-31-50	23-35-56
	NC		-	-	13	20	26	31	35	39	41	44

18x6 10x10	CFM		60	125	185	250	310	370	435	495	560	620
	Throw	4-Way	2-3-4	4-6-9	5-8-13	7-11-17	9-13-21	10-15-21	12-17-24	13-20-32	15-22-36	17-25-40
		3-Way	2-3-5	4-6-9	6-9-14	8-11-18	9-14-22	11-16-23	13-19-31	14-21-34	16-24-39	18-27-43
		2-Way	2-3-5	4-6-10	6-9-15	8-12-20	10-16-25	12-17-25	14-21-34	16-24-38	18-27-43	20-29-47
		1-Way	2-3-6	5-7-12	8-11-18	10-14-20	12-19-30	15-22-35	17-26-41	19-29-46	21-32-51	24-36-57
	NC		-	-	13	21	27	32	36	39	42	45

See page GR115 for notes on performance data



ENGINEERING DATA

A20, A40 Curved Blade Series

Nominal Duct Size	Core Vel. (fpm)	100	200	300	400	500	600	700	800	900	1000
	Velocity Pressure	0.001	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.051	0.062
	Total Pressure	0.003	0.014	0.031	0.056	0.090	0.131	0.175	0.225	0.290	0.355

30x4 20x6 14x8 12x10	CFM	70	140	210	280	350	420	490	560	630	700
	4-Way	2-3-5	4-6-9	5-8-13	7-11-17	9-13-21	10-15-21	12-17-25	14-21-33	15-23-37	17-26-41
	3-Way	2-3-5	4-6-9	6-9-14	8-12-19	10-13-19	11-16-23	13-20-32	15-22-36	17-25-40	18-27-44
	2-Way	2-4-6	5-7-11	7-10-16	9-13-21	10-15-21	12-18-26	15-22-35	17-25-40	18-27-44	20-31-49
	1-Way	3-4-7	5-8-13	8-12-19	10-15-21	12-19-30	15-22-36	18-26-42	20-29-47	22-33-53	25-37-59
	NC	-	-	14	21	27	32	36	40	42	45

36x4 24x6 16x8 14x10	CFM	80	160	245	325	405	485	565	650	730	810
	4-Way	2-3-5	4-6-9	6-9-14	8-11-18	9-14-22	11-15-22	12-18-26	14-21-34	16-24-38	18-27-43
	3-Way	2-3-5	4-6-10	6-9-15	8-12-20	11-15-22	12-17-24	14-21-33	15-23-37	17-26-41	19-29-46
	2-Way	2-4-6	5-7-11	7-10-16	9-14-22	11-15-22	13-19-31	15-22-36	17-26-41	19-29-46	21-32-51
	1-Way	3-4-7	5-8-13	8-12-20	11-15-22	13-20-32	16-24-38	18-27-44	20-31-49	23-34-55	26-39-62
	NC	-	-	15	22	28	33	37	40	43	46

18x8 12x12	CFM	85	175	260	350	435	520	610	695	785	870
	4-Way	2-3-5	4-6-9	6-9-14	8-12-19	10-13-19	11-16-23	13-19-31	15-22-35	16-24-39	18-27-43
	3-Way	2-3-5	4-6-10	6-9-15	8-12-20	10-15-21	12-17-25	14-21-33	16-24-38	18-27-42	20-29-47
	2-Way	2-4-6	5-7-11	7-11-17	9-14-22	11-16-23	13-20-32	15-23-37	18-26-42	20-29-47	22-32-52
	1-Way	3-4-7	6-9-14	8-12-20	11-15-22	13-20-32	16-24-39	19-28-45	21-31-50	23-35-56	26-39-63
	NC	-	-	15	22	28	33	37	40	43	46

30x6 20x10 16x10 14x12	CFM	100	205	305	410	510	610	715	815	920	1020
	4-Way	2-3-5	4-6-10	6-9-15	8-12-19	10-14-20	12-17-24	13-20-32	15-22-36	17-26-41	19-28-45
	3-Way	2-4-6	4-6-10	7-10-16	9-13-21	10-16-25	12-18-26	15-22-35	16-24-39	18-27-44	20-30-48
	2-Way	2-4-6	5-7-12	7-11-17	10-13-19	12-17-24	14-21-33	16-24-39	18-27-43	20-31-49	23-34-55
	1-Way	3-4-7	6-9-14	9-13-21	11-17-27	14-21-34	17-25-40	19-29-46	22-32-52	25-37-59	27-41-65
	NC	-	-	16	23	29	34	38	41	44	47

24x8 18x10 16x12	CFM	115	230	345	460	575	690	805	920	1040	1150
	4-Way	2-3-5	4-6-10	6-9-15	8-12-20	10-15-21	12-17-25	14-21-33	16-24-38	18-26-42	19-29-46
	3-Way	2-4-6	5-7-11	7-10-16	9-13-21	11-15-22	13-19-31	15-22-36	17-26-41	19-28-45	21-31-50
	2-Way	2-4-6	5-7-12	8-11-18	10-13-19	12-17-25	14-21-34	17-25-40	19-28-45	21-31-50	23-35-56
	1-Way	3-5-8	6-9-15	9-14-22	12-17-24	15-22-35	17-26-41	20-29-47	22-34-54	25-37-60	28-42-68
	NC	-	-	16	24	30	34	38	42	45	48

36x6 20x10 14x14	CFM	125	250	375	500	625	750	875	1000	1120	1250
	4-Way	2-3-5	4-5-6	6-8-11	8-12-20	10-15-21	12-17-25	14-21-34	16-24-38	18-27-43	20-29-47
	3-Way	2-4-6	5-6-7	7-9-12	9-14-22	11-16-23	13-20-32	15-23-37	17-26-41	19-29-46	21-32-51
	2-Way	2-4-6	5-6-8	8-10-14	10-14-20	12-18-26	15-22-35	17-26-41	19-29-46	21-32-51	24-36-57
	1-Way	3-5-8	6-8-11	9-13-18	12-17-25	15-22-35	18-26-42	20-30-48	23-34-55	26-39-62	29-43-69
	NC	-	-	16	24	30	35	39	42	45	48

16x14 18x12	CFM	135	270	405	540	675	810	945	1080	1220	1350
	4-Way	2-4-6	4-5-6	7-10-16	9-13-21	10-15-21	12-18-26	15-22-35	16-24-39	18-27-43	20-30-48
	3-Way	2-4-6	5-6-7	7-11-17	9-14-22	11-16-23	13-20-32	15-23-37	18-26-42	20-29-47	22-32-52
	2-Way	3-4-7	5-7-9	8-12-19	10-15-21	12-18-26	15-22-36	18-26-42	20-29-47	22-33-53	25-37-59
	1-Way	3-5-8	6-8-11	10-13-19	12-17-25	15-22-36	18-27-43	21-31-50	23-35-56	26-39-63	29-44-70
	NC	-	-	17	24	30	35	39	42	45	48

30x8 24x10 20x12 18x14 16x16	CFM	155	305	460	610	765	920	1070	1220	1380	1530
	4-Way	2-4-6	5-6-7	7-10-16	9-13-21	11-15-22	13-19-31	15-22-36	17-25-40	19-28-45	21-31-50
	3-Way	2-4-6	5-6-8	7-11-17	10-13-19	12-17-24	14-21-33	16-24-39	18-27-44	20-31-49	22-34-54
	2-Way	3-4-7	5-7-9	8-12-19	10-15-21	13-20-32	15-23-37	18-27-43	20-30-48	23-34-55	25-37-60
	1-Way	3-5-8	7-9-12	10-13-19	12-18-26	15-23-37	18-27-44	21-32-51	24-36-58	27-41-65	30-46-73
	NC	-	-	17	25	31	36	40	43	46	49

36x8 30x10 24x12 20x14 18x16	CFM	182	365	545	730	910	1090	1270	1460	1640	1820
	4-Way	2-4-6	5-6-7	7-11-17	9-14-22	11-16-23	13-20-32	15-23-37	18-26-42	20-29-47	22-33-53
	3-Way	2-4-6	5-6-8	8-11-18	10-14-20	12-17-25	15-22-35	17-25-40	19-28-45	21-32-51	24-36-57
	2-Way	3-4-7	6-8-10	8-12-20	11-16-23	14-21-33	16-24-39	19-28-45	21-31-50	24-36-57	26-39-63
	1-Way	3-5-8	7-9-12	10-14-20	13-20-32	16-24-39	19-29-46	22-34-54	25-37-60	29-42-68	32-48-76
	NC	-	-	18	26	32	36	40	44	47	50

24x14 20x16 18x18	CFM	210	420	630	840	1050	1260	1470	1680	1890	2100
	4-Way	2-4-6	5-6-8	8-11-18	10-13-19	12-17-24	14-21-34	16-24-39	18-27-44	20-31-49	23-34-55
	3-Way	3-4-7	5-7-9	8-12-19	10-15-21	12-18-26	15-22-36	18-26-42	20-29-47	22-33-53	25-37-59
	2-Way	3-4-7	6-8-10	9-13-21	12-17-24	14-21-34	17-25-40	19-29-46	22-32-52	25-37-59	28-41-66
	1-Way	4-6-9	7-10-13	10-15-21	14-21-33	17-25-40	20-30-48	23-34-55	26-39-62	29-44-70	33-50-80
	NC	-	-	19	26	32	37	41	44	47	50

See page GR115 for notes on performance data



ENGINEERING DATA

A20, A40 Curved Blade Series

Nominal Duct Size	Core Vel. (fpm)		100	200	300	400	500	600	700	800	900	1000
	Velocity Pressure		0.001	0.002	0.006	0.010	0.016	0.022	0.031	0.040	0.051	0.062
	Total Pressure		0.003	0.014	0.031	0.056	0.090	0.131	0.175	0.225	0.290	0.355

36 x 10 30 x 12 24 x 16 20 x 18	CFM		235	470	705	940	1180	1410	1640	1880	2120	2350
	Throw	4-Way	5-6-8	8-11-18	10-14-20	12-17-25	15-22-35	17-25-40	19-28-45	21-31-50	24-36-57	17-26-41
		3-Way	5-7-9	8-12-20	10-15-21	13-19-31	15-23-37	18-27-43	20-31-49	23-34-55	25-37-60	18-27-44
		2-Way	6-8-11	9-14-22	12-17-24	15-22-35	18-26-42	20-30-48	22-34-54	25-38-61	28-42-68	20-31-49
		1-Way	7-10-13	11-15-22	14-21-33	18-26-42	20-31-49	24-36-57	27-40-64	30-45-72	34-51-82	25-37-59
	NC		-	-	19	27	33	37	41	45	48	51

36 x 12 30 x 14 24 x 18 20 x 20	CFM		270	535	805	1070	1340	1610	1880	2140	2410	2680
	Throw	4-Way	3-4-7	5-7-9	8-12-19	10-15-21	12-18-26	15-22-36	18-26-42	20-29-47	22-32-52	25-37-59
		3-Way	3-4-7	6-8-10	8-12-20	11-15-22	14-21-33	16-24-39	19-28-45	21-31-50	24-36-57	26-39-63
		2-Way	3-5-8	6-8-11	9-14-22	12-17-25	15-22-36	20-30-48	20-31-49	23-35-56	26-39-62	29-44-70
		1-Way	4-6-9	8-10-14	11-16-23	15-22-35	18-27-43	21-32-51	25-37-59	28-41-66	31-47-75	35-53-85
	NC		-	-	20	27	33	38	42	45	48	51

36 x 14 30 x 16 24 x 20	CFM		315	630	945	1260	1580	1890	2200	2520	2840	3150
	Throw	4-Way	3-4-7	5-7-9	8-12-19	11-15-22	13-19-31	15-23-37	18-27-43	20-31-49	23-34-55	26-39-62
		3-Way	3-4-7	6-8-10	9-13-21	11-16-23	14-21-34	17-25-40	19-29-46	22-32-52	25-37-59	28-41-66
		2-Way	3-5-8	7-9-12	10-14-20	12-18-26	16-24-38	19-28-45	21-32-51	24-36-58	27-41-65	30-46-73
		1-Way	4-5-6	8-11-15	12-17-24	15-22-36	19-28-45	22-33-53	26-39-62	29-43-69	33-49-79	37-56-89
	NC		-	10	20	28	34	39	43	46	49	52

36 x 16 30 x 18 24 x 24	CFM		365	730	1100	1460	1820	2190	2560	2920	3280	3650
	Throw	4-Way	3-4-7	6-9-14	8-12-20	11-16-23	14-21-33	16-24-39	19-28-45	21-31-50	24-36-57	27-40-64
		3-Way	3-5-8	6-9-15	9-14-22	12-17-24	15-22-35	18-26-42	20-30-48	23-34-55	25-38-61	28-42-68
		2-Way	3-5-8	7-9-12	10-14-20	13-20-32	16-24-39	19-29-46	22-34-54	25-37-60	28-42-68	32-48-76
		1-Way	4-5-6	8-11-16	12-17-25	15-23-37	19-29-46	23-34-55	27-40-64	30-45-72	34-51-82	38-57-92
	NC		-	11	21	29	35	39	43	47	50	53

36 x 18 30 x 20	CFM		405	810	1220	1620	2020	2430	2830	3240	3640	4050
	Throw	4-Way	3-4-7	6-9-14	9-13-21	11-16-23	14-21-34	17-25-40	19-29-46	22-32-52	25-37-59	28-41-66
		3-Way	3-5-8	6-9-15	9-14-22	12-17-25	15-22-36	18-27-43	20-31-49	23-35-56	26-39-63	29-44-70
		2-Way	4-6-9	7-10-13	10-15-21	13-20-32	17-25-40	20-29-47	23-34-55	26-39-62	29-44-70	33-49-79
		1-Way	4-5-6	8-11-16	12-18-26	16-24-39	20-29-47	24-36-57	28-41-66	31-46-74	35-52-84	39-59-94
	NC		-	11	22	29	35	40	44	47	50	53

36 x 20 30 x 24	CFM		470	945	1420	1890	2360	2830	3300	3780	4250	4720
	Throw	4-Way	3-5-8	6-9-15	9-14-22	12-17-24	15-22-35	18-26-42	20-30-48	22-34-54	25-38-61	28-42-68
		3-Way	3-5-8	7-9-12	10-13-19	12-18-26	16-24-38	19-28-45	22-32-52	24-36-58	28-41-66	31-46-74
		2-Way	4-6-9	7-10-13	11-15-22	14-21-34	18-26-42	20-31-49	24-36-57	27-40-64	30-46-73	34-51-82
		1-Way	5-6-7	9-12-17	13-19-31	17-25-40	20-31-49	25-37-59	28-42-68	32-49-78	37-55-88	41-61-98
	NC		-	12	22	30	36	40	44	48	51	54

36 x 24 30 x 30	CFM		580	1160	1750	2330	2910	3490	4070	4660	5240	5820
	Throw	4-Way	3-5-8	6-9-15	10-13-19	12-18-26	15-23-37	18-27-44	21-32-51	24-36-57	27-40-64	30-45-72
		3-Way	4-6-9	7-9-12	10-15-21	13-20-32	17-25-40	20-29-47	23-34-55	25-38-61	29-44-70	32-49-78
		2-Way	4-6-9	8-10-14	11-16-23	15-22-35	18-27-44	22-32-52	25-37-60	28-42-68	32-48-77	36-54-87
		1-Way	5-6-7	9-13-18	13-20-32	18-26-42	22-32-52	26-39-62	30-45-72	34-51-82	39-58-93	44-66-105
	NC		-	13	23	31	37	41	45	49	52	55

36 x 30	CFM		715	1430	2150	2870	3580	4300	5020	5740	6450	7170
	Throw	4-Way	3-5-8	7-9-12	10-14-20	13-20-32	16-24-39	19-29-46	22-34-54	25-37-60	28-42-68	32-48-76
		3-Way	4-6-9	7-10-13	11-15-22	14-21-34	18-26-42	21-31-50	24-36-57	27-41-65	30-46-73	34-51-82
		2-Way	4-5-6	8-11-16	12-17-25	15-23-37	19-29-46	23-34-55	27-40-64	30-45-72	34-51-82	38-57-92
		1-Way	5-6-8	10-13-19	14-21-34	18-27-44	23-34-55	28-41-66	32-48-77	36-54-87	41-61-98	46-69-110
	NC		-	14	24	31	37	42	46	50	53	56

36 x 36	CFM		865	1730	2590	3450	4320	5180	6040	6900	7700	8630
	Throw	4-Way	4-6-9	7-10-13	10-15-21	14-21-33	17-26-41	20-31-49	23-35-56	27-40-64	30-44-71	33-50-80
		3-Way	4-5-6	8-10-14	11-16-23	15-22-35	18-27-44	22-35-52	25-37-60	27-42-68	32-48-77	36-54-87
		2-Way	4-5-6	8-11-16	12-18-26	16-24-39	20-30-48	24-36-58	28-42-67	32-48-76	36-54-86	40-60-96
		1-Way	5-7-9	10-14-20	15-22-36	19-29-46	24-36-58	29-44-70	33-50-80	38-57-91	43-64-103	48-72-116
	NC		-	14	25	32	38	43	47	51	53	56

See page GR115 for notes on performance data



ENGINEERING DATA

Notes

1. Tests conducted in accordance with ANSI/ASHRAE 70-2006 at isothermal conditions.
2. Tests conducted with a flexible duct inlet condition. Other inlet conditions may alter performance.
3. Units: Total Pressure = in. wc
4. Throw based on terminal velocities of 150 fpm, 100 fpm and 50 fpm..
5. NC is based upon 10dB room absorption (Re: 10^{-12} watts) evaluated at 125 through 4000 Hz octave bands.
6. Dash "-" indicates NC value less than 10.