

### Four-Way Square

Face Velocity		500	600	700	800	900	1000	1200	1400	1600	1800	2000
Pressure Loss		.020	.020	.030	.040	.050	.060	.090	.120	.160	.200	.250
6 x 6	CFM	50	60	70	80	90	100	120	140	160	180	200
Ak .100	Throw X/Y	2-3/2-3	2-3/2-3	2-4/2-4	2-4/2-4	3-5/3-5	3-5/3-5	4-6/4-6	4-8/4-8	5-8/5-8	5-9/5-9	6-11/6-11
9 x 9	CFM	110	135	155	180	205	225	270	315	360	410	450
Ak .220	Throw X/Y	2-4/2-4	2-4/2-4	3-5/3-5	3-5/3-5	4-6/4-6	5-8/5-8	5-9/5-9	6-11/6-11	6-12/6-12	7-13/7-13	8-14/8-14
12 x 12	CFM	200	240	280	320	360	400	480	560	640	725	800
Ak .400	Throw X/Y	3-5/3-5	4-6/4-6	4-8/4-8	5-8/5-8	5-9/5-9	6-11/6-11	6-12/6-12	7-13/7-13	8-15/8-15	9-17/9-17	10-19/10-19
15 x 15	CFM	310	375	440	500	565	625	750	875	1000	1125	1250
Ak .620	Throw X/Y	4-6/4-6	4-8/4-8	5-9/5-9	6-11/6-11	6-11/6-11	6-12/6-12	8-15/8-15	10-18/10-18	10-19/10-19	12-21/12-21	13-23/13-23
18 x 18	CFM	450	540	630	720	810	900	1080	1260	1440	1620	1800
Ak .900	Throw X/Y	4-8/4-8	5-9/5-9	5-11/5-11	6-12/6-12	7-13/7-13	8-15/8-15	10-17/10-17	11-20/11-20	13-23/13-23	15-27/15-27	16-30/16-30
21 x 21	CFM	615	740	860	985	1110	1230	1475	1725	1970	2220	2460
Ak 1.230	Throw X/Y	5-9/5-9	6-11/6-11	7-13/7-13	8-14/8-14	9-15/9-15	9-17/9-17	11-21/11-21	13-25/13-25	15-29/15-29	17-31/17-31	19-35/19-35
24 x 24	CFM	800	960	1120	1275	1440	1600	1925	2240	2570	2890	3200
Ak 1.600	Throw X/Y	5-11/5-11	7-13/7-13	7-14/7-14	8-15/8-15	9-17/9-17	10-19/10-19	12-23/12-23	14-29/14-29	16-31/16-31	18-35/18-35	20-39/20-39
27 x 27	CFM	1010	1215	1420	1615	1820	2020	2430	2840	3240	3650	4040
Ak 2.020	Throw X/Y	6-12/6-12	7-13/7-13	8-15/8-15	10-18/10-18	10-19/10-19	12-22/12-22	14-27/14-27	16-32/16-32	18-35/18-35	20-38/20-38	23-42/23-42
33 x 33	CFM	1370	1650	1925	2200	2470	2750	3300	3850	4400	4950	5500
Ak 2.750	Throw X/Y	7-13/7-13	9-16/9-16	10-18/10-18	21-21/12-21	14-24/14-24	16-27/16-27	18-33/18-33	19-37/19-37	23-41/23-41	27-46/27-46	31-50/31-50

### Four-Way Rectangular

Face Velocity		500	600	700	800	900	1000	1200	1400	1600	1800	2000
Pressure Loss		.020	.020	.030	.040	.050	.060	.090	.120	.160	.200	.250
9 x 6	CFM	75	90	105	120	135	150	180	210	240	270	300
Ak .150	Throw X/Y	1-3/2-4	1-3/3-5	2-4/3-5	2-4/4-6	3-5/4-6	3-5/4-8	4-6/5-9	4-6/5-9	4-8/7-13	5-9/8-15	6-11/8-15
12 x 6	CFM	100	120	140	160	180	200	240	280	320	360	400
Ak .200	Throw X/Y	1-3/3-5	1-3/4-6	2-4/4-8	2-4/4-8	2-4/5-9	3-5/6-11	4-6/7-13	4-8/8-15	4-8/8-15	5-9/10-18	6-11/11-21
12 x 9	CFM	150	180	210	240	270	300	360	420	480	540	600
Ak .300	Throw X/Y	2-4/3-5	2-4/3-5	3-5/4-6	4-6/4-8	4-7/5-10	4-8/6-11	5-9/6-12	6-11/7-13	7-13/9-17	7-13/10-18	8-14/11-19
15 x 9	CFM	185	225	265	300	340	375	450	525	600	675	750
Ak .370	Throw X/Y	2-4/4-6	2-4/4-6	3-5/5-9	4-6/6-11	4-6/6-12	4-8/8-14	5-9/8-15	5-9/9-17	6-12/11-21	7-13/13-25	7-13/13-25
18 x 9	CFM	225	270	315	360	405	450	540	630	720	810	900
Ak .450	Throw X/Y	2-4/4-6	2-4/5-9	3-5/6-11	4-6/6-12	4-6/8-14	4-8/8-15	5-9/10-19	5-10/11-23	6-12/13-25	8-14/15-29	10-17/17-32
21 x 9	CFM	265	320	370	425	475	530	635	740	850	955	1060
Ak .530	Throw X/Y	2-4/5-9	2-4/6-11	3-5/8-14	4-6/8-15	4-8/10-18	4-8/10-19	5-9/11-21	6-17/13-25	8-13/16-31	9-15/19-35	10-17/21-38
15 x 12	CFM	250	300	350	400	450	500	600	700	800	900	1000
Ak .500	Throw X/Y	3-5/4-6	3-5/4-8	4-6/5-9	4-8/6-11	5-9/6-12	6-11/7-13	6-12/8-15	7-13/10-18	8-15/11-21	10-18/13-23	12-21/14-27
18 x 12	CFM	295	355	415	475	535	595	715	835	950	1070	1190
Ak .590	Throw X/Y	2-4/4-8	3-5/5-9	4-6/6-11	4-8/7-13	5-9/8-14	6-11/8-15	6-12/10-18	8-14/11-21	9-16/13-23	10-18/15-27	12-21/17-31
21 x 12	CFM	345	415	485	555	625	690	830	970	1100	1240	1375
Ak .690	Throw X/Y	3-5/5-9	3-5/6-11	4-6/7-13	4-8/8-14	4-8/8-15	5-9/10-18	6-11/11-21	7-13/14-26	8-15/16-29	9-17/17-31	10-19/19-35
24 x 12	CFM	400	480	560	640	720	800	960	1140	1280	1440	1600
Ak .800	Throw X/Y	2-4/6-11	4-6/7-13	4-6/8-14	4-8/9-16	4-8/10-18	5-9/11-21	6-12/14-26	8-14/15-29	9-17/17-31	10-19/19-35	10-19/21-39
18 x 15	CFM	375	450	525	600	675	750	900	1050	1200	1350	1500
Ak .75	Throw X/Y	4-6/4-8	4-8/5-9	5-9/6-11	6-11/6-12	6-12/8-14	7-13/8-15	8-15/10-18	9-17/10-19	10-19/13-23	12-22/15-26	14-25/17-29
24 x 15	CFM	500	600	700	800	900	1000	1200	1400	1600	1800	2000
Ak 1.000	Throw X/Y	4-6/6-11	4-8/6-12	5-9/8-14	6-11/9-17	6-12/10-18	7-13/11-21	8-15/13-25	10-18/15-29	11-21/17-32	13-23/20-36	15-27/22-39
24 x 18	CFM	600	720	840	960	1080	1200	1440	1680	1920	2160	2400
Ak 1.200	Throw X/Y	4-8/6-11	5-9/6-12	6-11/7-14	6-12/8-15	7-14/10-19	8-15/11-21	10-18/13-23	11-21/15-27	13-25/18-34	15-30/21-37	16-32/23-41
33 x 21	CFM	960	1150	1340	1530	1725	1920	2300	2690	3070	3450	3840
Ak 1.920	Throw X/Y	4-8/8-15	6-11/10-18	7-13/12-22	8-14/13-25	8-15/15-29	10-18/17-31	12-21/21-35	14-26/24-39	16-29/26-43	17-31/29-47	21-39/35-56
30 x 24	CFM	1000	1200	1400	1600	1800	2000	2400	2800	3200	3600	4000
Ak 2.000	Throw X/Y	6-11/7-13	6-12/8-15	8-14/10-18	8-15/11-21	10-18/13-23	10-19/14-26	12-23/16-29	15-28/19-35	16-31/21-39	19-35/24-43	22-40/29-51

### Three-Way Style 3

Face Velocity		500	600	700	800	900	1000	1200	1400	1600	1800	2000
Pressure Loss		.020	.020	.030	.040	.050	.060	.090	.120	.160	.200	.250
6 x 6	CFM	50	60	70	80	90	100	120	140	160	180	200
Ak .100	Throw X/Y	2-4/1-2	2-4/1-2	3-5/2-3	3-5/2-3	4-7/2-4	4-7/2-4	5-9/3-6	6-10/3-6	6-11/4-7	6-11/4-7	7-13/4-8
9 x 9	CFM	110	135	155	180	205	225	270	315	360	410	450
Ak .220	Throw X/Y	2-4/2-3	3-6/2-3	4-7/2-4	4-8/2-4	5-9/3-6	5-9/3-6	6-12/4-7	7-13/5-9	9-15/6-10	10-18/6-11	11-20/7-12
12 x 12	CFM	200	240	280	320	360	400	480	560	640	725	800
Ak .400	Throw X/Y	4-7/2-5	5-9/3-6	6-10/4-7	6-10/4-7	6-11/4-8	7-13/5-9	9-16/6-10	12-21/7-12	13-22/8-13	14-24/8-13	16-27/9-15
15 x 15	CFM	310	375	440	500	565	625	750	875	1000	1125	1250
Ak .620	Throw X/Y	4-8/2-4	6-11/4-7	7-13/4-7	8-14/4-8	8-15/5-9	9-16/6-10	11-19/7-12	13-23/9-15	15-26/10-18	17-29/11-20	19-33/12-21
18 x 18	CFM	450	540	630	720	810	900	1080	1260	1440	1620	1800
Ak .900	Throw X/Y	4-9/3-5	6-11/4-7	7-13/5-9	9-15/6-10	10-18/6-11	11-20/7-12	13-24/9-15	15-26/10-18	18-32/11-20	20-35/12-22	23-40/14-25
21 x 21	CFM	615	740	860	985	1110	1230	1475	1725	1970	2220	2460
Ak 1.230	Throw X/Y	5-11/3-6	7-13/4-8	11-19/6-11	11-20/7-12	12-21/8-13	13-23/8-14	16-29/10-17	19-34/11-20	21-39/14-23	24-42/16-25	27-45/18-29
24 x 24	CFM	800	960	1120	1275	1440	1600	1925	2240	2570	2890	3200
Ak 1.600	Throw X/Y	7-14/5-9	9-16/6-11	11-19/7-13	13-21/8-14	14-24/9-15	16-27/9-16	17-31/11-19	21-35/14-24	25-39/16-27	28-43/18-31	32-47/20-33
27 x 27	CFM	1010	1215	1420	1615	1820	2020	2430	2840	3240	3650	4040
Ak 2.020	Throw X/Y	7-13/4-9	9-16/6-11	11-20/7-13	13-23/9-15	14-25/9-16	15-27/10-18	18-31/12-21	22-37/14-25	25-41/18-30	28-46/19-33	31-50/21-36

### Three-Way Style 31S and Style 31L\*

Face Velocity		500	600	700	800	900	1000	1200	1400	1600	1800	2000
Pressure Loss		.020	.020	.030	.040	.050	.060	.090	.120	.160	.200	.250
9 x 6	CFM	75	90	105	120	135	150	180	210	240	270	300
Ak .150	Throw X/Y	2-3/4-7	2-3/4-7	2-3/4-7	2-4/4-8	3-5/5-8	3-6/5-9	4-7/6-11	4-8/7-12	6-10/9-15	6-11/10-17	6-11/11-19
9 x 9*	CFM	115	135	155	180	200	225	270	315	360	405	450
Ak .220	Throw X/Y	1-3/4-7	2-3/5-9	2-3/6-11	2-4/7-12	3-6/8-14	3-6/9-16	4-7/10-18	4-8/12-21	5-9/14-24	6-10/16-28	6-11/18-32
12 x 9	CFM	150	180	210	240	210	300	360	420	480	540	600
Ak .300	Throw X/Y	2-3/4-8	2-4/5-9	3-6/6-10	4-7/7-12	4-8/8-14	4-8/8-14	5-9/9-16	6-10/11-20	7-12/14-24	8-13/15-26	9-15/16-28
12 x 12*	CFM	200	240	280	320	360	400	480	560	640	720	800
Ak .40	Throw X/Y	2-3/5-11	2-4/7-13	3-6/9-15	3-6/10-17	4-7/11-19	4-8/12-21	6-10/15-26	6-11/18-32	7-12/20-34	7-13/21-36	8-14/24-42
15 x 15*	CFM	310	375	440	500	565	625	750	875	1000	1125	1250
Ak .620	Throw X/Y	2-4/7-13	3-6/10-18	4-7/11-20	4-8/12-21	5-9/14-25	5-9/14-25	6-11/19-34	7-13/22-38	8-14/25-43	9-16/27-44	10-18/30-45
18 x 15	CFM	375	450	525	600	675	750	900	1050	1200	1350	1500
Ak .750	Throw X/Y	3-6/7-13	4-7/9-15	4-8/9-16	5-9/11-20	6-10/13-23	6-11/15-26	7-13/17-30	9-16/19-35	10-18/22-39	11-20/27-40	13-25/30-46
21 x 18	CFM	525	630	735	840	945	1050	1260	1475	1680	1890	2100
Ak 1.050	Throw X/Y	4-7/8-14	4-8/10-18	5-9/11-20	6-10/18-23	6-11/14-25	7-12/16-28	9-15/19-34	10-18/22-39	11-20/27-40	13-23/29-46	15-26/33-51
21 x 21*	CFM	615	740	860	985	1110	1230	1475	1725	1970	2210	2460
Ak 1.230	Throw X/Y	3-6/9-17	4-8/12-21	5-9/16-27	6-10/17-30	7-11/19-32	7-12/21-36	9-15/26-40	11-19/30-45	13-22/34-51	15-25/39-56	17-28/43-60
27 x 21	CFM	780	940	1080	1250	1400	1560	1870	2180	2500	2800	3120
Ak 1.560	Throw X/Y	5-9/10-18	5-9/11-20	6-10/13-22	7-12/15-26	8-14/18-32	9-16/21-36	11-19/23-40	13-21/25-43	15-24/29-47	17-29/34-53	19-33/38-59
30 x 24	CFM	1000	1200	1400	1600	1800	2000	2400	2800	3200	3500	4000
Ak 2.000	Throw X/Y	5-9/11-20	6-11/13-23	7-13/16-27	8-14/17-31	9-16/20-35	10-18/22-40	12-21/25-44	14-25/31-48	16-29/34-53	18-32/38-57	20-35/43-61
33 x 27	CFM	1230	1475	1725	1970	2220	2460	2950	3450	3925	4425	4920
Ak 2.460	Throw X/Y	6-10/13-23	7-13/17-28	8-14/19-33	9-16/21-35	11-18/23-39	12-20/25-44	14-25/29-47	16-29/33-51	18-33/37-56	22-37/42-59	25-41/47-64

### Two-Way Corner Style 2C

Face Velocity		500	600	700	800	900	1000	1200	1400	1600	1800	2000
Pressure Loss		.020	.020	.030	.040	.050	.060	.090	.120	.160	.200	.250
6 x 6	CFM	45	55	60	70	80	90	105	125	140	160	180
Ak .090	Throw X/Y	1-3/1-3	2-5/2-5	2-5/2-5	3-7/3-7	3-7/3-7	5-8/5-8	5-8/5-8	6-11/6-11	7-12/7-12	8-13/8-13	9-14/9-14
9 x 9	CFM	95	115	135	155	175	195	235	275	315	350	390
Ak .190	Throw X/Y	4-6/4-6	4-6/4-6	5-7/5-7	5-8/5-8	6-10/6-10	6-11/6-11	8-13/8-13	9-14/9-14	10-16/10-16	13-20/13-20	14-22/14-22
12 x 12	CFM	175	210	245	280	315	350	420	480	560	635	700
Ak .350	Throw X/Y	5-7/5-7	5-8/5-8	6-11/6-11	8-13/8-13	8-13/8-13	9-14/9-14	10-16/10-16	13-19/13-19	14-22/14-22	16-26/16-26	19-29/19-29
15 x 15	CFM	275	330	385	440	495	550	660	775	885	995	1100
Ak .550	Throw X/Y	5-9/5-9	7-12/7-12	8-13/8-13	9-14/9-14	10-16/10-16	11-18/11-18	13-21/13-21	15-25/15-25	19-29/19-29	21-33/21-33	23-36/23-36
18 x 18	CFM	390	470	545	625	700	780	935	1090	1250	1410	1560
Ak .780	Throw X/Y	7-12/7-12	9-14/9-14	10-15/10-15	10-16/10-16	12-19/12-19	14-22/14-22	16-25/16-25	18-29/18-29	21-33/21-33	25-38/25-38	28-42/28-42
21 x 21	CFM	540	650	760	865	975	1080	1300	1515	1730	1945	2160
Ak 1.080	Throw X/Y	8-13/8-13	10-15/10-15	12-18/12-18	13-21/13-21	15-23/15-23	17-28/17-28	20-32/20-32	22-35/22-35	25-39/25-39	29-43/29-43	32-47/32-47
24 x 24	CFM	705	845	990	1130	1270	1410	1690	1950	2250	2540	2820
Ak 1.410	Throw X/Y	9-16/9-16	11-18/11-18	13-21/13-21	15-24/15-24	17-27/17-27	19-29/19-29	22-34/22-34	25-38/25-38	29-42/29-42	33-47/33-47	37-51/37-51
27 x 27	CFM	880	1055	1230	1410	1585	1760	2110	2470	2820	3170	3520
Ak 1.760	Throw X/Y	10-17/10-17	12-19/12-19	14-22/14-22	16-26/16-26	19-29/19-29	21-33/21-33	24-37/24-37	28-41/28-41	32-46/32-46	35-50/35-50	39-55/39-55

### Two-Way Corner Style 2CR

Face Velocity		500	600	700	800	900	1000	1200	1400	1600	1800	2000
Pressure Loss		.020	.020	.030	.040	.050	.060	.090	.120	.160	.200	.250
9 x 6	CFM	65	80	95	105	120	130	160	185	210	240	260
Ak .130	Throw X/Y	2-4/3-5	3-5/4-7	4-6/5-8	4-6/5-8	5-7/6-11	5-7/6-11	6-9/8-13	6-10/9-14	7-12/11-16	8-13/13-21	10-16/16-25
12 x 6	CFM	90	105	120	140	160	175	210	245	280	315	350
Ak .170	Throw X/Y	2-4/3-6	3-5/5-8	3-5/6-11	4-6/7-12	5-7/8-13	5-7/9-14	5-8/10-15	6-11/13-20	7-12/15-24	8-13/17-26	10-15/19-29
15 x 6	CFM	110	130	155	175	200	220	265	310	350	395	440
Ak .220	Throw X/Y	2-4/5-8	3-5/6-10	3-5/7-12	4-6/8-13	5-7/10-15	5-8/11-17	6-9/13-20	6-10/15-24	8-12/17-27	10-14/20-30	11-17/22-34
12 x 9	CFM	130	155	180	210	235	260	310	365	415	470	520
Ak .260	Throw X/Y	4-6/5-7	4-6/5-8	5-7/6-10	5-8/6-11	6-10/8-12	6-11/9-14	8-13/10-16	11-17/14-21	19-19/16-24	13-20/17-26	14-23/19-30
15 x 9	CFM	165	195	230	260	295	325	390	460	525	590	650
Ak .320	Throw X/Y	4-6/6-10	5-7/6-11	6-8/8-12	6-9/10-14	6-11/10-16	7-12/12-19	9-14/14-22	10-15/16-25	12-17/19-29	13-20/21-33	14-22/23-35
18 x 9	CFM	195	235	275	310	350	390	470	545	625	700	780
Ak .390	Throw X/Y	4-6/6-11	5-7/8-13	5-7/9-14	5-8/10-15	6-10/11-18	7-12/13-21	8-13/16-25	9-15/19-29	11-17/22-33	12-20/23-35	14-22/26-39
21 x 9	CFM	230	275	320	365	410	455	545	635	730	820	910
Ak .450	Throw X/Y	4-6/8-13	5-7/10-15	6-8/11-17	6-9/12-19	6-10/13-21	6-11/15-24	8-13/18-29	10-15/22-34	12-18/24-38	13-21/26-42	15-25/30-47
15 x 12	CFM	220	260	305	350	390	435	525	610	700	785	870
Ak .430	Throw X/Y	5-7/5-8	5-8/6-11	6-10/8-13	7-12/9-14	8-13/10-16	9-14/12-19	11-18/14-22	13-20/16-25	15-24/19-29	16-26/21-32	18-29/24-37
18 x 12	CFM	260	315	370	420	475	525	630	735	840	945	1050
Ak .520	Throw X/Y	4-7/6-11	5-8/8-13	6-10/9-14	7-12/11-17	9-14/13-21	10-15/14-22	12-18/17-26	14-20/21-30	16-24/23-34	18-27/27-38	21-31/29-42
21 x 15	CFM	380	455	530	605	685	760	915	1060	1220	1370	1520
Ak .760	Throw X/Y	6-10/8-13	6-11/9-14	8-13/11-18	9-14/13-20	10-16/15-24	12-19/16-26	13-21/19-29	15-26/22-33	18-29/25-38	21-33/29-44	25-38/32-49
24 x 15	CFM	440	525	615	700	790	875	1050	1225	1400	1575	1750
Ak .870	Throw X/Y	4-9/8-14	6-11/10-16	8-13/13-20	9-14/15-24	10-16/16-26	12-19/19-29	14-22/22-34	16-25/25-38	19-29/29-44	21-32/33-48	25-37/37-52
21 x 18	CFM	460	550	640	735	825	915	1100	1280	1465	1645	1830
Ak .980	Throw X/Y	6-11/8-13	8-13/10-15	10-15/11-18	11-17/12-20	12-19/14-22	13-21/16-25	16-26/19-29	19-30/22-34	22-34/26-39	25-38/29-43	27-42/32-48
27 x 21	CFM	690	830	965	1100	1245	1380	1655	1935	2210	2490	2760
Ak 1.380	Throw X/Y	8-13/10-17	10-15/13-20	12-19/15-24	14-21/17-27	15-23/19-30	16-26/21-33	20-30/25-37	24-36/29-42	28-41/33-46	30-46/37-51	34-51/42-56