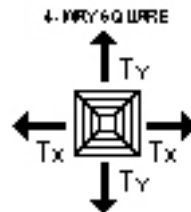


SR/AR Square & Rectangular Ceiling Diffusers — Steel/Aluminum (Page 34)

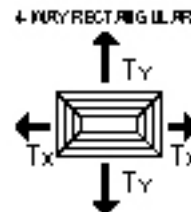
Four-Way Square

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



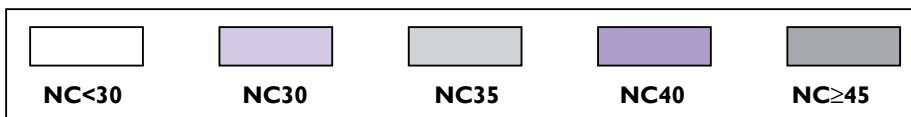
Four-Way Rectangular

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



Note 1: The minimum Throw Dimension is based on a terminal velocity of 200 fpm. The maximum Throw Dimension is based on a terminal velocity of 100 fpm.

Ceiling Height in Feet	Maximum Recommended Cooling Temperature Differential	Maximum Recommended CFM Per Diffuser			
		SR/AR/ASR	SR/AR		
		Four-Way	Three-Way	Two-Way	One-Way
7	15°	400	300	200	100
8	20°	600	450	300	150
9	25°	1200	900	600	300
10	25°	1800	1350	900	450
12	30°	3200	2400	1600	800
14	30°	4800	3600	2400	1200
16	30°	6000	4500	3000	1500

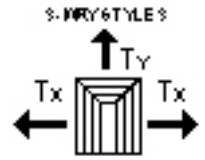


Recommended Noise Criteria and Face Velocity Ranges are on page 75

SR/AR Square & Rectangular Ceiling Diffusers — Steel/Aluminum (Page 34)

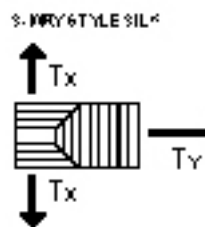
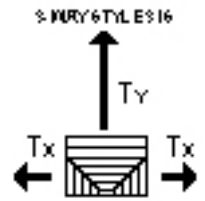
Three-Way Style 3

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	14-24/8-14	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*

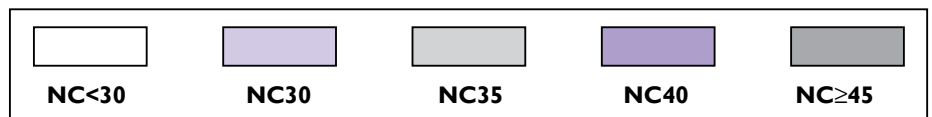
Face Velocity		500	600	700	800	900	1000	1200	1400	1600	1800	2000
Pressure Loss		.020	.020	.030	.040	.050	.060	.090	.120	.160	.200	.250
9 x 6	CFM	75	90	105	120	135	150	180	210	240	270	300
Ak .150	Throw X/Y	2-3/4-7	2-3/4-7	2-3/4-7	2-4/4-8	3-5/5-8	3-6/5-9	4-7/6-11	4-8/7-12	6-10/9-15	6-11/10-17	6-11/11-19
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	15-25/39-54	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



Note 2: The minimum Throw Dimension is based on a terminal velocity of 170 fpm. The maximum Throw Dimension is based on a terminal velocity of 85 fpm.

*Style 31L not available in square configuration

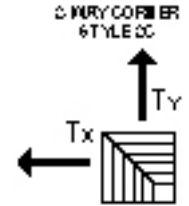
Ceiling Height in Feet	Maximum Recommended Cooling Temperature Differential	Maximum Recommended CFM Per Diffuser			
		SR/AR/ASR	SR/AR		
		Four-Way	Three-Way	Two-Way	One-Way
7	15°	400	300	200	100
8	20°	600	450	300	150
9	25°	1200	900	600	300
10	25°	1800	1350	900	450
12	30°	3200	2400	1600	800
14	30°	4800	3600	2400	1200
16	30°	6000	4500	3000	1500



SR/AR Square & Rectangular Ceiling Diffusers — Steel/Aluminum (Page 34)

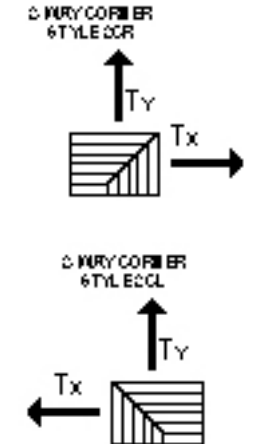
Two-Way Corner Style 2C

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



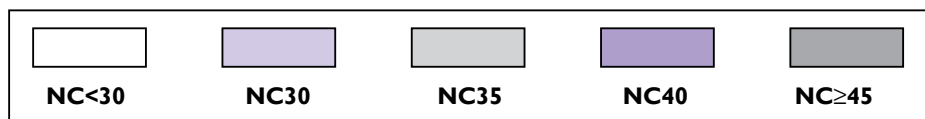
Two-Way Corner Style 2CR

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



Note 3: The minimum Throw Dimension is based on a terminal velocity of 135 fpm. The maximum Throw Dimension is based on a terminal velocity of 65 fpm.

Ceiling Height in Feet	Maximum Recommended Cooling Temperature Differential	Maximum Recommended CFM Per Diffuser			
		SR/AR/ASR	SR/AR		
		Four-Way	Three-Way	Two-Way	One-Way
7	15°	400	300	200	100
8	20°	600	450	300	150
9	25°	1200	900	600	300
10	25°	1800	1350	900	450
12	30°	3200	2400	1600	800
14	30°	4800	3600	2400	1200
16	30°	6000	4500	3000	1500

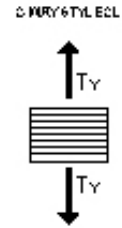


Recommended Noise Criteria and Face Velocity Ranges are on page 75

SR/AR Square & Rectangular Ceiling Diffusers — Steel/Aluminum (Page 34)

Two-Way Style 2L

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 Y	3-5	3-5	5-7	6-8	7-10	7-10	8-12	10-14	11-17	14-20	16-23
12 x 6	CFM	90	105	120	140	160	175	210	245	280	315	350
Ak .170	Throw Y	3-5	5-7	6-8	6-9	7-10	8-12	10-14	12-18	15-21	16-23	17-25
15 x 6	CFM	110	130	155	175	200	220	265	310	350	395	440
Ak .220	Throw Y	4-6	6-8	6-9	7-10	9-13	10-14	10-15	13-19	15-21	18-26	21-30
12 x 9	CFM	130	155	180	210	235	260	310	365	415	470	520
Ak .260	Throw Y	5-7	6-8	6-9	8-12	10-14	10-14	11-17	14-21	16-24	19-27	20-31
15 x 9	CFM	165	195	230	260	295	325	390	460	525	590	650
Ak .320	Throw Y	6-8	7-10	8-12	9-13	10-15	12-18	14-20	16-24	18-26	21-31	24-35
18 x 9	CFM	195	235	275	310	350	390	470	545	625	700	780
Ak .390	Throw Y	6-9	8-12	9-13	10-14	11-17	13-19	15-21	17-25	19-29	22-33	25-39
21 x 9	CFM	230	275	320	365	410	455	545	635	730	820	910
Ak .450	Throw Y	7-10	8-12	9-13	11-16	12-18	14-20	16-24	19-27	22-32	25-36	29-41
15 x 12	CFM	220	260	305	350	390	435	525	610	700	785	870
Ak .430	Throw Y	6-9	8-12	10-14	10-15	12-18	14-20	15-24	18-27	22-32	24-36	28-41
18 x 12	CFM	260	315	370	420	475	525	630	735	840	945	1050
Ak .520	Throw Y	7-11	9-13	11-15	12-18	13-19	15-21	18-26	20-29	23-34	27-39	31-42
21 x 15	CFM	380	455	530	605	685	760	915	1060	1220	1370	1520
Ak .760	Throw Y	9-13	10-15	12-18	14-20	15-23	17-25	20-30	23-34	27-40	31-44	34-48
24 x 15	CFM	440	525	615	700	790	875	1050	1225	1400	1575	1750
Ak .870	Throw Y	8-14	11-16	13-19	15-21	17-25	19-29	22-33	25-38	29-42	33-48	38-54
21 x 18	CFM	460	550	640	735	825	915	1100	1280	1465	1645	1830
Ak .910	Throw Y	10-15	11-17	13-19	16-22	19-25	20-28	23-33	26-38	29-42	34-46	38-51
27 x 21	CFM	690	830	965	1100	1245	1380	1655	1935	2210	2490	2760
Ak 1.300	Throw Y	11-17	14-20	17-24	19-27	21-31	23-35	27-40	34-46	38-51	42-56	47-61



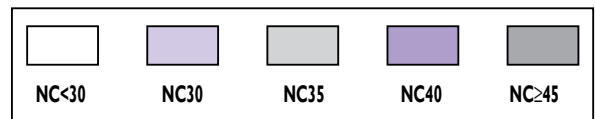
Two-Way Style 2S

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	265
Ak .130	Throw X	3-6	4-7	5-8	6-9	8-12	9-13	10-14	11-17	13-19	15-23	17-26
12 x 6	CFM	90	105	120	140	160	175	210	245	280	315	350
Ak .170	Throw X	4-7	6-8	7-10	8-12	9-13	10-14	11-17	14-20	15-23	17-25	19-29
15 x 6	CFM	110	130	155	175	200	220	265	310	350	395	440
Ak .220	Throw X	5-7	6-9	7-10	9-13	10-15	11-17	13-19	15-23	18-26	21-30	23-34
12 x 9	CFM	130	155	180	210	235	260	310	365	415	470	520
Ak .260	Throw X	6-8	6-9	7-10	9-13	9-13	10-15	13-19	15-21	17-25	19-29	21-31
15 x 9	CFM	165	195	230	260	295	325	390	460	525	590	650
Ak .320	Throw X	7-10	8-12	9-13	10-14	12-18	14-20	16-24	18-26	19-29	23-33	27-39
18 x 9	CFM	195	235	275	310	350	390	470	545	625	700	780
Ak .390	Throw X	7-10	9-13	11-17	12-18	13-19	15-23	18-27	20-30	22-32	25-38	29-43
21 x 9	CFM	230	275	320	365	410	455	545	635	730	820	910
Ak .450	Throw X	9-13	9-14	10-15	12-18	15-21	16-24	19-29	22-33	26-38	29-42	32-47
15 x 12	CFM	220	260	305	350	390	435	525	610	700	785	870
Ak .430	Throw X	7-10	8-12	10-14	11-17	13-19	15-21	16-24	19-27	22-33	25-38	29-42
18 x 12	CFM	260	315	370	420	475	525	630	735	840	945	1050
Ak .520	Throw X	8-11	10-14	10-15	12-18	14-20	15-23	18-27	23-33	25-37	29-42	32-47
21 x 15	CFM	380	455	530	605	685	760	915	1060	1220	1370	1520
Ak .760	Throw X	10-15	11-17	14-20	15-23	18-26	20-29	22-33	26-38	29-42	35-46	39-51
24 x 15	CFM	440	525	615	700	790	875	1050	1225	1400	1575	1750
Ak .870	Throw X	9-14	11-17	15-21	17-25	19-29	22-32	25-37	28-41	33-45	38-51	43-56
21 x 18	CFM	460	550	640	735	825	915	1100	1280	1465	1645	1830
Ak .910	Throw X	11-17	12-18	14-20	16-24	19-27	20-29	23-34	27-40	32-45	37-49	40-55
27 x 21	CFM	690	830	965	1100	1245	1380	1655	1935	2210	2490	2760
Ak 1.300	Throw X	12-18	15-21	18-25	21-29	23-33	25-37	29-43	33-48	38-53	43-59	49-63



Note 3: The minimum Throw Dimension is based on a terminal velocity of 135 fpm. The maximum Throw Dimension is based on a terminal velocity of 65 fpm.

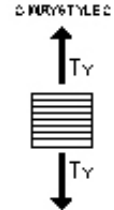
Ceiling Height in Feet	Maximum Recommended Cooling Temperature Differential	Maximum Recommended CFM Per Diffuser			
		SR/AR/ASR	SR/AR		
		Four-Way	Three-Way	Two-Way	One-Way
7	15°	400	300	200	100
8	20°	600	450	300	150
9	25°	1200	900	600	300
10	25°	1800	1350	900	450
12	30°	3200	2400	1600	800
14	30°	4800	3600	2400	1200
16	30°	6000	4500	3000	1500



SR/AR Square & Rectangular Ceiling Diffusers — Steel/Aluminum (Page 34)

Two-Way Style 2

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 Y	3-5	3-5	4-7	4-7	5-8	5-8	6-9	9-13	10-15	11-17	12-18
9 x 9	CFM	95	115	135	155	175	195	235	275	315	350	390
Ak .190	Throw Y	5-7	6-8	6-8	6-9	8-12	9-13	11-17	12-18	14-20	16-24	18-26
12 x 12	CFM	175	210	245	280	315	350	420	480	560	635	700
Ak .350	Throw Y	4-7	6-9	9-13	10-15	11-17	12-18	14-20	17-23	18-27	21-31	23-35
15 x 15	CFM	275	330	385	440	495	550	660	775	885	995	1100
Ak .550	Throw Y	8-12	10-14	10-15	12-18	14-20	15-23	18-27	22-32	24-36	26-39	29-43
18 x 18	CFM	390	470	545	625	700	780	935	1090	1250	1410	1560
Ak .780	Throw Y	9-15	11-17	12-18	14-20	15-23	18-26	20-30	24-36	27-42	31-45	36-51
21 x 21	CFM	540	650	760	865	975	1080	1300	1515	1730	1945	2160
Ak 1.080	Throw Y	11-17	14-20	15-23	18-26	19-29	23-35	26-40	29-44	34-49	38-54	43-59
24 x 24	CFM	705	845	990	1130	1270	1410	1690	1950	2250	2540	2820
Ak 1.410	Throw Y	12-19	14-22	17-25	20-30	21-33	23-35	27-40	34-46	39-51	42-56	46-60
27 x 27	CFM	880	1055	1230	1410	1585	1760	2110	2470	2820	3170	3520
Ak 1.760	Throw Y	12-20	15-23	18-26	21-31	24-36	26-40	30-45	35-50	39-56	43-61	48-66



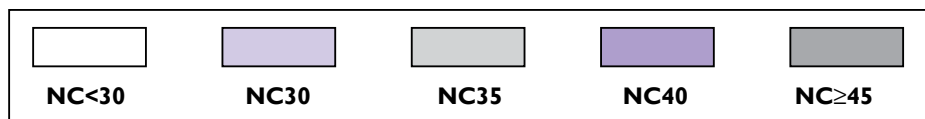
One-Way Style

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	3-5	4-7	5-8	6-9	8-10	9-12	10-14	12-18	14-20	15-22	16-24
9 x 9	CFM	95	115	135	155	175	195	235	275	315	350	390
Ak .190	Throw	6-9	7-10	9-13	10-14	11-17	13-19	15-21	18-26	19-29	22-33	25-38
12 x 12	CFM	175	210	245	280	315	350	420	480	560	635	700
Ak .350	Throw	8-12	10-14	12-18	13-19	15-21	18-26	21-31	24-36	27-40	30-43	33-45
15 x 15	CFM	275	330	385	440	495	550	660	775	885	995	1100
Ak .550	Throw	10-16	13-19	14-22	18-26	19-29	21-31	25-37	30-43	35-46	38-50	42-56
18 x 18	CFM	390	470	545	625	700	780	935	1090	1250	1410	1560
Ak .780	Throw	13-21	15-23	18-26	19-29	22-33	25-38	29-42	35-46	42-49	44-52	49-56
21 x 21	CFM	540	650	760	865	975	1080	1300	1515	1730	1945	2160
Ak 1.080	Throw	14-23	17-25	21-30	24-36	27-40	30-43	34-48	39-54	44-60	48-64	53-68
24 x 24	CFM	705	845	990	1130	1270	1410	1690	1950	2250	2540	2820
Ak 1.410	Throw	20-29	23-33	24-36	27-40	30-44	35-48	39-54	43-60	48-65	52-69	56-74
27 x 27	CFM	880	1055	1230	1410	1585	1760	2110	2470	2820	3170	3520
Ak 1.760	Throw	19-27	22-31	25-38	28-42	33-47	36-53	43-58	49-63	54-68	60-73	65-77



Note 3: The minimum Throw Dimension is based on a terminal velocity of 135 fpm. The maximum Throw Dimension is based on a terminal velocity of 65 fpm.

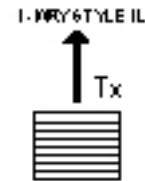
Ceiling Height in Feet	Maximum Recommended Cooling Temperature Differential	Maximum Recommended CFM Per Diffuser			
		SR/AR/ASR	SR/AR		
		Four-Way	Three-Way	Two-Way	One-Way
7	15°	400	300	200	100
8	20°	600	450	300	150
9	25°	1200	900	600	300
10	25°	1800	1350	900	450
12	30°	3200	2400	1600	800
14	30°	4800	3600	2400	1200
16	30°	6000	4500	3000	1500



SR/AR Square & Rectangular Ceiling Diffusers — Steel/Aluminum (Page 34)

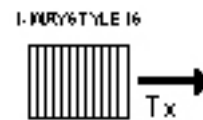
One-Way Style 1L

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	265
Ak .130	Throw	5-8	6-9	7-11	8-12	9-13	10-15	12-18	15-21	16-24	19-29	21-32
12 x 6	CFM	90	105	120	140	160	175	210	245	280	315	350
Ak .170	Throw	5-8	6-9	6-13	9-14	10-15	12-18	14-20	17-25	18-27	20-30	23-35
15 x 6	CFM	110	130	155	175	200	220	265	310	350	395	440
Ak .220	Throw	5-8	7-10	9-13	10-15	12-18	14-20	16-24	18-27	21-31	24-36	28-41
12 x 9	CFM	130	155	180	210	235	260	310	365	415	470	520
Ak .260	Throw	7-10	8-12	10-14	11-17	12-18	14-20	17-25	19-29	22-23	25-37	28-41
15 x 9	CFM	165	195	230	260	295	325	390	460	525	590	650
Ak .320	Throw	9-13	10-14	11-17	12-18	15-23	17-25	20-30	22-33	25-37	29-42	32-45
18 x 9	CFM	195	235	275	310	350	390	470	545	625	700	780
Ak .390	Throw	9-13	10-15	12-18	14-20	16-24	18-26	20-30	25-37	27-40	31-44	36-48
15 x 12	CFM	220	260	305	350	390	435	525	610	700	785	870
Ak .430	Throw	10-14	11-17	13-19	15-23	18-26	19-29	22-32	26-39	30-43	35-48	39-54
18 x 12	CFM	260	315	370	420	475	525	630	735	840	945	1050
Ak .520	Throw	10-15	12-18	14-20	17-25	19-27	21-30	25-36	28-41	32-45	36-49	42-54
21 x 15	CFM	380	455	530	605	685	760	915	1060	1220	1370	1520
Ak .760	Throw	13-19	15-21	18-26	19-29	22-34	25-38	29-42	34-46	38-51	43-56	48-61
24 x 15	CFM	440	525	615	700	790	875	1050	1225	1400	1575	1750
Ak .870	Throw	14-22	16-24	18-27	21-31	24-36	27-40	30-43	35-47	41-52	46-57	53-61
21 x 18	CFM	460	550	640	735	825	915	1100	1280	1465	1645	1830
Ak .910	Throw	14-20	16-24	19-29	22-32	24-36	26-39	30-43	35-47	41-51	45-56	49-62
27 x 21	CFM	690	830	965	1100	1245	1380	1655	1935	2210	2490	2760
Ak 1.380	Throw	17-27	19-29	23-35	26-40	30-45	34-49	38-54	43-60	48-67	54-72	59-80



One-Way Style 1S

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	265
Ak .130	Throw	4-7	5-9	7-11	9-13	11-17	13-19	15-21	16-24	18-27	21-32	23-35
12 x 6	CFM	90	105	120	140	160	175	210	245	280	315	350
Ak .170	Throw	6-10	8-12	10-15	12-17	14-19	15-21	17-25	21-31	23-35	25-37	29-44
15 x 6	CFM	110	130	155	175	200	220	265	310	350	395	440
Ak .220	Throw	9-12	10-14	12-18	14-20	16-24	18-26	21-31	23-35	27-40	31-45	35-51
12 x 9	CFM	130	155	180	210	235	260	310	365	415	470	520
Ak .260	Throw	8-12	10-14	10-15	12-18	14-20	16-24	18-27	23-33	24-37	28-42	30-44
15 x 9	CFM	165	195	230	260	295	325	390	460	525	590	650
Ak .320	Throw	10-15	12-18	13-19	15-21	18-26	22-32	23-35	26-39	30-43	35-46	38-47
18 x 9	CFM	195	235	275	310	350	390	470	545	625	700	780
Ak .390	Throw	11-17	13-19	15-23	17-25	20-30	22-33	25-38	31-44	34-45	38-47	42-51
15 x 12	CFM	220	260	305	350	390	435	525	610	700	785	870
Ak .430	Throw	11-16	12-18	15-21	17-25	19-29	22-32	25-38	28-44	33-45	36-49	42-54
18 x 12	CFM	260	315	370	420	475	525	630	735	840	945	1050
Ak .520	Throw	12-18	14-20	16-24	19-27	21-31	22-33	27-40	32-45	37-47	42-50	45-56
21 x 15	CFM	380	455	530	605	685	760	915	1060	1220	1370	1520
Ak .760	Throw	14-20	16-24	19-29	22-32	24-37	28-41	33-45	39-48	43-52	48-58	54-63
24 x 15	CFM	440	525	615	700	790	875	1050	1225	1400	1575	1750
Ak .870	Throw	16-23	18-26	22-32	25-37	28-41	32-45	37-47	44-54	49-59	54-66	59-71
21 x 18	CFM	460	550	640	735	825	915	1100	1280	1465	1645	1830
Ak .910	Throw	18-24	18-26	21-31	24-33	26-38	28-41	33-47	39-53	44-58	48-63	54-69
27 x 21	CFM	690	830	965	1100	1245	1380	1655	1935	2210	2490	2760
Ak 1.380	Throw	19-29	21-32	25-38	31-44	37-49	40-51	42-55	46-61	51-66	56-71	61-77



Note 3: The minimum Throw Dimension is based on a terminal velocity of 135 fpm. The maximum Throw Dimension is based on a terminal velocity of 65 fpm.

Ceiling Height in Feet	Maximum Recommended Cooling Temperature Differential	Maximum Recommended CFM Per Diffuser			
		SR/AR/ASR		SR/AR	
		Four-Way	Three-Way	Two-Way	One-Way
7	15°	400	300	200	100
8	20°	600	450	300	150
9	25°	1200	900	600	300
10	25°	1800	1350	900	450
12	30°	3200	2400	1600	800
14	30°	4800	3600	2400	1200
16	30°	6000	4500	3000	1500

