

ASR Square Supply Return Diffuser — Aluminum (Page 35)

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
Supply Performance Data												
12 x 12 Ak .180	CFM	90	105	120	140	155	175	210	250	280	315	350
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	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	6-4/6-4	6-12/6-12	7-13/7-13	8-14/8-14
	NC	<30	<30	<30	<30	<30	<30	<35	<40	<45	<45	<45
Return Performance Data												
9 x 9 Grid Core Ak .340	CFM	65	80	90	105	115	130	160	190	210	235	260
	-Ps	<.01	<.01	<.01	<.01	<.01	<.01	.01	.02	.02	.03	.04
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45

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
Supply Performance Data												
15 x 15 Ak .400	CFM	200	240	280	320	360	400	480	560	640	720	800
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	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
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45
Return Performance Data												
9 x 9 Grid Core Ak .340	CFM	150	180	210	240	270	300	360	420	480	540	600
	-Ps	.01	.02	.02	.03	.04	.05	.07	.09	.12	.16	.19
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45

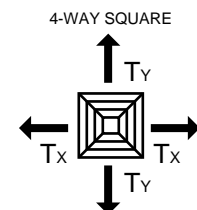
Face Velocity		500	600	700	800	900	1000	1200	1400	1600	1800	2000
Pressure Loss		.020	.020	.030	.040	.050	.060	.090	.120	.160	.200	.250
Supply Performance Data												
18 x 18 Ak .500	CFM	250	300	350	400	450	500	600	700	800	900	1000
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	Throw X/Y	3-5/3-5	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
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45
Return Performance Data												
12 x 12 Grid Core Ak .640	CFM	190	225	265	300	340	375	450	525	600	675	750
	-Ps	<.01	<.01	.01	.01	.02	.02	.03	.04	.06	.07	.09
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45

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
Supply Performance Data												
21 x 21 Ak .600	CFM	300	360	420	480	540	600	720	845	960	1075	1200
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	Throw X/Y	3-5/3-5	3-7/3-7	4-7/4-7	4-8/4-8	5-9/5-9	5-11/5-11	6-12/6-12	7-14/7-14	8-16/8-16	19-18/9-18	11-21/11-21
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45
Return Performance Data												
15 x 15 Grid Core Ak 1.000	CFM	225	270	315	360	405	450	540	635	720	810	900
	-Ps	<.01	<.01	<.01	<.01	.01	.01	.02	.03	.03	.04	.05
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45

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
Supply Performance Data												
24 x 24 Ak .700	CFM	350	420	490	560	630	700	840	980	1120	1260	1400
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	Throw X/Y	3-5/3-5	3-7/3-7	4-7/4-7	4-9/4-9	5-11/5-11	5-11/5-11	6-12/6-12	7-15/7-15	9-17/9-17	11-21/11-21	13-25/13-25
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45
Return Performance Data												
18 x 18 Grid Core Ak 1.600	CFM	260	315	365	420	470	525	630	735	840	945	1050
	-Ps	<.01	<.01	<.01	<.01	<.01	<.01	.01	.01	.01	.02	.03
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45

Return CFM listed is 75% of supply.
NC re 8db room Attenuation

NOTES: 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.
The minimum Throw Dimension in feet is based on a V_T of 200 FPM with V_R of 65 FPM.
The maximum Throw Dimension in feet is based on a V_T of 100 FPM with V_R of 35 FPM.



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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
Supply Performance Data												
27 x 27 Ak 1.100	CFM	560	675	785	900	1020	1120	1345	1570	1790	2020	2240
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	Throw X/Y	3-5/3-5	3-5/3-5	4-8/4-8	5-11/5-11	6-14/6-14	7-15/7-15	8-17/8-17	9-18/9-18	11-21/11-21	13-25/13-25	15-29/15-29
	NC	<30	<30	<30	<30	<30	<30	<35	<40	<45	<45	<45
Return Performance Data												
18 x 18 Grid Core Ak 1.600	CFM	345	505	590	675	765	840	1020	1180	1340	1520	1680
	-Ps	<.01	<.01	<.01	.01	.02	.02	.03	.04	.05	.06	.07
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45

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
Supply Performance Data												
30 x 30 Ak 1.300	CFM	635	765	890	1015	1140	1270	1520	1775	2030	2290	2540
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	Throw X/Y	3-7/3-7	4-8/4-8	4-10/4-10	5-12/5-12	6-14/6-14	7-16/7-16	9-17/9-17	10-19/10-19	12-23/12-23	14-27/14-27	16-31/16-31
	NC	<30	<30	<30	<30	<30	<30	35	40	>45	>45	>45
Return Performance Data												
21 x 21 Grid Core Ak 2.100	CFM	475	575	665	760	855	955	1140	1330	1520	1720	1900
	-Ps	<.01	<.01	<.01	<.01	.01	.01	.02	.03	.03	.04	.05
	NC	<30	<30	<30	<30	<30	<35	40	45	>45	>45	>45

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
Supply Performance Data												
33 x 33 Ak 1.800	CFM	900	1080	1260	1440	1620	1800	2160	2520	2880	3250	3600
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	Throw X/Y	4-8/4-8	5-10/5-10	6-12/6-12	6-13/6-13	7-15/7-15	8-17/8-17	11-23/11-23	14-29/14-29	16-31/16-31	18-35/18-35	20-39/20-39
	NC	<30	<30	<30	<30	<30	<30	35	45	>45	>45	>45
Return Performance Data												
21 x 21 Grid Core Ak 2.100	CFM	675	810	945	1080	1210	1350	1620	1885	2160	2440	2700
	-Ps	<.01	<.01	.01	.02	.02	.03	.04	.05	.07	.09	.10
	NC	<30	<30	<30	<30	<30	<35	40	45	>45	>45	>45

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
Supply Performance Data												
36 x 36 Ak 2.000	CFM	1000	1200	1400	1600	1800	2000	2400	2800	3200	3600	4000
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	Throw X/Y	3-8/3-8	4-11/4-11	5-12/5-12	6-14/6-14	7-16/7-16	9-19/9-19	12-23/12-23	14-27/14-27	16-31/16-31	18-35/18-35	22-39/22-39
	NC	<30	<30	<30	<30	<30	<30	40	45	>45	>45	>45
Return Performance Data												
24 x 24 Grid Core Ak 2.800	CFM	750	900	1050	1200	1350	1500	1800	2100	2400	2700	3000
	-Ps	<.01	<.01	<.01	.01	.01	.02	.03	.03	.05	.06	.07
	NC	<30	<30	<30	<30	<30	<35	40	45	>45	>45	>45

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
Supply Performance Data												
42 x 42 Ak 2.900	CFM	1450	1740	2030	2320	2610	2900	3480	4060	4640	5225	5800
	Ps	.01	.02	.02	.03	.04	.05	.07	.10	.13	.16	.20
	Throw X/Y	4-11/4-11	5-13/5-13	7-16/7-16	10-21/10-21	12-25/12-25	15-29/15-29	17-33/17-33	19-36/19-36	22-41/22-41	25-48/25-48	29-54/29-54
	NC	<30	<30	<30	<30	<30	<30	45	45	>45	>45	>45
Return Performance Data												
27 x 27 Grid Core Ak 3.600	CFM	1085	1300	1520	1735	1950	2170	2600	3040	3470	3900	4340
	-Ps	<.01	<.01	.01	.01	.02	.02	.03	.04	.06	.07	.09
	NC	<30	<30	<30	<30	<35	<40	40	45	>45	>45	>45

Return CFM listed is 75% of supply.
NC re 8db room Attenuation

NOTES: 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.
The minimum Throw Dimension in feet is based on a V_T of 200 FPM with V_R of 65 FPM.
The maximum Throw Dimension in feet is based on a V_T of 100 FPM with V_R of 35 FPM.

