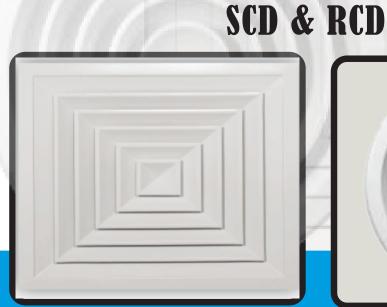


# SQUARE & RECTNGULAR & CIRCULAR CEILING DIFFUSERS







Pro-airoutlets.com

## SQUARE & RECTNGULAR DIFFUSER SCD&RCD

## TYPES

•SCD : Square ceiling diffuser •RCD : Rectangular ceiling diffuser.



## MATERIALS

•Frame : Extruded aluminium Profile ( with 32 mm flange ).

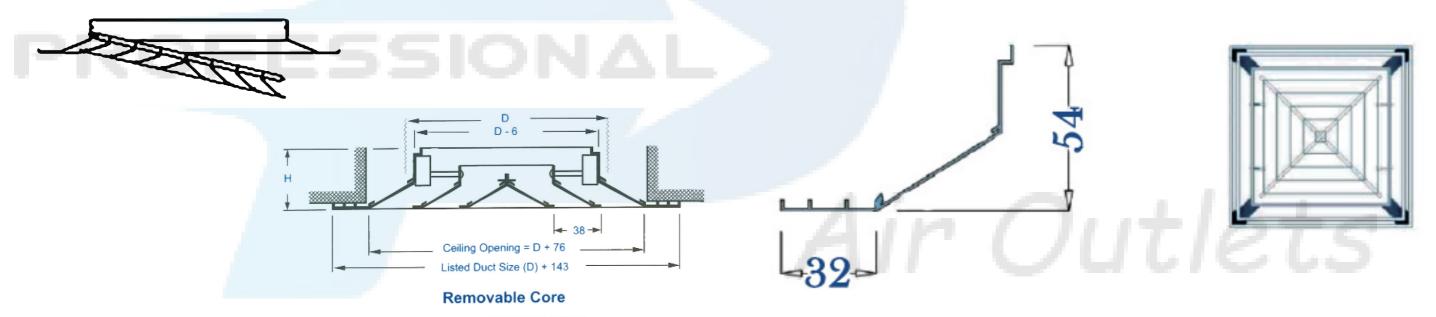
- •Blades : Extruded aluminium Profile
- •Damper frame and Core: Extruded aluminium Profile

## FINISH

Standard finish \_ Anodised or electrostatic painted...



- Ceiling air diffuser brilliantly suit the modern architectural designs.
- Ceiling air diffuser are applied for supply, return and drive out of air.
- Ceiling air diffuser with their fixed blades are mainly suitable for horizontal discharge, and usually installed in ceiling level.
- Ceiling air diffuser consist of an outer frame, and a removable central section for easier installation.
- 1-2-3-4 way throw patterns.
- · Opposed blade damper is screw operated from the face opening of the diffuser after removing the internal core.
- Available in square, rectangular or round necks.



H = (56 mm) WITHOUT DAMPER = (100 mm) WIDTH DAMPER





## AVAILABLE CEILING DIFFUSER



#### 4 SCD

Four way throw – square neck c/w opposed blade damper (supply) w/o opposed blade damper( return )





c/w opposed blade damper (supply ) w/o opposed blade damper(return)

# AVAILABLE CEILING DIFFUSER









Four way throw – round neck c/w opposed blade damper (supply ) w/o opposed blade damper( return )



#### 3 SCD

Three way throw – square neck c/w opposed blade damper (supply) w/o opposed blade damper( return )

#### 3 RCD

Three way throw – rectangular neck c/w opposed blade damper (supply ) w/o opposed blade damper( return )













Professional

#### 2 SCD

Two way throw – square neck c/w opposed blade damper (supply ) w/o opposed blade damper( return )

#### 2 RCD

Two way throw – rectangular neck c/w opposed blade damper (supply ) w/o opposed blade damper( return )

2 CSCD

Two way corner throw – square neck c/w opposed blade damper (supply ) w/o opposed blade damper( return )

#### SCD

one way throw – square neck c/w opposed blade damper (supply) w/o opposed blade damper( return )

#### RCD

one way throw – rectangular neck c/w opposed blade damper (supply) w/o opposed blade damper( return )

#### **ASPECT RATIO**

The ratio of the long side to the short side of a duct section / or air outlet.

## CFM

A measure of volume of air in cubic feet per minute.

#### AK

Effective outlet area in sq.ft.

#### FPM

Velocity of air in feet per minute.

#### PT

Total pressure in inches of water. Equals the sum of static pressure plus velocity pressure. THROW

The distance measured horizontally in feet that the air stream travels from the outlet to the point of terminal velocity. The throw is based on maximum terminal velocity of 50 fpm and minimum terminal velocity of 100 fpm.

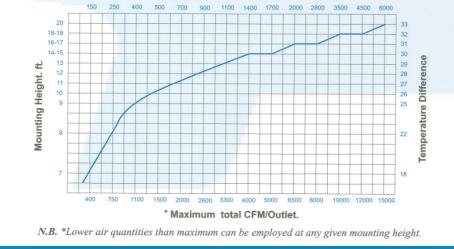
#### DROP

The vertical distance the air moves between the time it leaves the outlet and the time it reaches the end of its throw.

#### NC

Noise Criteria are based on sound power level .To determine NC values in the room due to diffuser, subtract the room attenuation from the NC ratings which are gives in the performance tables .

CFM – TD Ratios



## PERFORMANCE DATA 4 WAY SQUARE DIFFUSER

## Model 4SCD

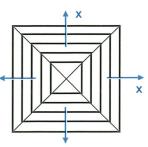
#### FOUR- WAY THROW SQUARE DIFFUSERS

NECK SIZE AK	NECK VELOCITY FPM	200	300	400	500	600	700	800	900	
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30	
6" X 6"	Total CFM	50	75	100	125	150	175	200	225	
	CFM each side - X	13	19	25	32	38	44	50	57	
AK = .13	Throw each side - X	2_3	3_5	4_7	5_9	6_11	7_13	8_15	9_17	
9" X 9"	Total CFM	112	168	224	280	336	392	448	504	
	CFM each side - X	28	42	56	70	84	98	112	126	
AK = .28	Throw each side - X	2_3	3_5	4_8	5_10	6_12	7_14	9_17	9_18	
12" X										
12"	Total CFM	200	300	400	500	600	700	800	900	
	CFM each side - X	50	75	100	125	150	175	200	225	
AK = .5	Throw each side - X	2_4	4_7	5_9	6_11	7_14	8_16	10-19	11_21	
15" X					700		4000	1010		
15"	Total CFM	312	468	624	780	936	1092	1248	1404	
	CFM each side - X	78	117	156	159	235	273	312	351	
AK = .79	Throw each side - X	3_5	4_8	5_10	7_13	8_16	10_19	11_21	12_24	
18" X 18"	Total CFM	450	675	900	1125	1350	1575	1800	2025	
10	CFM each side - X	113	169	225	281	338	394	450	507	
AK =		115	105	225	201	550	354	450	507	
1.13	Throw each side - X	3_5	4_8	5_10	7_13	9_17	10_20	12_24	13_26	
21" X										
21"	Total CFM	612	918	1224	1530	1836	2142	2448	2754	
	CFM each side - X	153	229	306	382	459	535	612	689	
AK =										
1.54	Throw each side - X	3_5	4_8	6_11	7_13	9_18	11_21	13-25	14_28	
24" X	TableThe	000	1200	1000	2000	2400	2000	2200	2500	
24"	Total CFM	800	1200	1600	2000	2400	2800	3200	3600	
	CFM each side - X	200	300	400	500	600	700	800	900	
AK = 2	Throw each side - X	3_6	5_9	6_12	7_14	10_19	11-22	13-26	15_30	l

Diffuser selection which will result in noise criteria not exceeding. Approximately 20 dB based on a room attenuation of 8 dB. Resulting Criteria not exceeding 30 dB.

Resulting Criteria not exceeding approximately 40 dB.

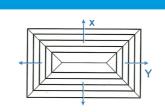
Resulting Criteria not exceeding 40 dB.



## PERFORMANCE DATA 4 WAY RECTANGULAR DIFFUSER

## PERFORMANCE DATA 4 WAY RECTANGULAR DIFFUSER

## Model 4RCD



#### FOUR- WAY THROW RECTANGULAR DIFFUSERS

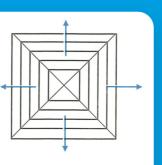
NECK SIZE	NECK VELOCITY	200	300	400	500	600	700	800	900
AK	FPM	200	500	400	500	000	700	800	500
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
6" X 9"	Total CFM	75	113	150	190	225	260	300	338
	CFM each side - X	25	38	50	65	75	85	100	113
	CFM each side - Y	13	19	25	30	38	45	50	56
AK = .19	Throw each side - X	2-4	3-6	4-8	5-10	6-11	7-13	8-15	9-17
	Throw each side -Y	1-2	2-3	2-4	3-5	3-6	4-7	4-8	5-9
6" X 12"	Total CFM	100	150	200	250	300	350	400	450
	CFM each side - X	37	56	75	93	112	131	150	169
	CFM each side - Y	13	19	25	32	38	44	50	56
AK = .25	Throw each side - X	2-4	4-7	5-9	6-11	7-13	8-15	9-17	10-19
	Throw each side -Y	2-3	2-3	2-4	3-5	3-6	4-7	4-8	5-9
6" X 15"	Total CFM	125	188	250	312	375	438	500	563
0 115	CFM each side - X	50	75	100	124	150	175	200	226
	CFM each side - Y	13	19	25	32	38	44	50	56
AK = .32	Throw each side - X	3-5	4-7	5-9	6-11	7-13	8-15	9-18	10-20
AK52	Throw each side -Y	1-2	2-3	2-4	3-5	3-5	3-6	4-7	4-8
6" X 18"									
0 1 10	Total CFM	150	225	300	375	450	525	600	675
	CFM each side - X	62	94	125	156	188	218	250	280
A.K. 20	CFM each side - Y	13	19	25	32	38	44	50	58
AK = .38	Throw each side - X	3-5	4_7	5-9	6-12	7-14	8-16	9-18	11-21
	Throw each side -Y	1-2	2-3	2-4	2-4	3-5	3-6	4-7	4-8
6" X 21"	Total CFM	175	263	350	438	525	612	700	788
	CFM each side - X	75	112	150	187	224	262	300	335
	CFM each side - Y	13	19	25	32	38	44	50	59
AK = .44	Throw each side - X	3-5	4-7	5-10	6-12	7-14	9-17	10-19	11-21
	Throw each side -Y	1-2	2-3	2-3	2-4	3-5	3-6	3-6	4-7
6" X 24"	Total CFM	200	300	400	500	600	700	800	900
	CFM each side - X	87	131	174	218	261	305	348	392
	CFM each side - Y	13	19	26	32	39	45	52	58
AK = .5	Throw each side - X	3-5	4_7	5-10	6-12	8-15	9-17	10-19	11-22
	Throw each side -Y	1-2	2-3	2-3	2-4	3-5	3-5	3-6	4-7
9" X 12"	Total CFM	150	225	300	375	450	525	600	675
	CFM each side - X	47	70	94	118	141	165	118	209
	CFM each side - Y	28	42	56	70	84	98	112	129
AK = .38	Throw each side - X	2_4	3_6	5-9	6-11	7-13	8-15	9-17	9-18
	Throw each side -Y	2-3	3-5	4-8	5-9	6-11	6-12	7-14	8-16
9" X 15"	Total CFM	188	282	375	470	563	657	750	844
	CFM each side - X	66	99	132	165	198	230	263	295
	CFM each side - Y	28	42	56	70	84	99	112	27
AK = .47	Throw each side - X	3-5	4-7	5-10	6-12	7-14	8-16	10-19	11-21
	Throw each side -Y	2-4	3-6	4-8	5-9	6-11	7-13	8-15	9-17
9" X 18"	Total CFM	225	338	450	562	675	788	900	1013
5 4 10	CFM each side - X	85	127	169	211	234	296	338	380
	CFM each side - Y	28	42	56	70	84	98	112	127
AK = .57	Throw each side - X	3-5	4-8	5-10	6-12	7-14	9-17	10-20	11-22
AK57	Throw each side - Y	2-4							
	mow each side -Y	2-4	3-6	4-7	5-9	6-11	7-13	7-14	8-16

#### MODEL: 4-RCD CONT.

AK	NECK VELOCITY FPM	200	300	400	500	600	700	800	900
An	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
9" X 21"	Total CFM	262	393	524	656	786	917	1050	1179
5	CFM each side - X	104	155	200	258	309	360	413	466
	CFM each side - Y	27	42	56	70	84	98	112	124
AK = .66	Throw each side - X	3-5	4-8	5-10	7-13	8-16	9-18	10-20	12-23
	Throw each side -Y	2-4	3-5	4-7	5-9	6-11	7-13	7-14	8-16
9" X 24"	Total CFM	300	450	600	750	900	1050	1200	1350
	CFM each side - X	125	187	249	311	374	436	498	560
	CFM each side - Y	25	38	51	64	76	89	102	115
AK = .76	Throw each side - X	3-5	4-8	6-11	7-13	8-16	10-19	11-21	12-24
	Throw each side -Y	2-3	3-5	4-7	4_8	5-10	6-11	7-13	7-14
12" X 15"	Total CFM	250	375	500	625	750	875	1000	1125
	CFM each side - X	75	113	150	188	225	263	300	338
	CFM each side - Y	50	75	100	125	150	175	200	225
AK = .63	Throw each side - X	3-5	4-8	5-10	7-13	8-15	9-17	10-20	11-22
	Throw each side -Y	2-4	4-7	5-9	6-11	7-13	8-15	9-17	10-19
12" X 18"	Total CFM	300	450	600	750	900	1050	1200	1350
	CFM each side - X	100	150	200	250	300	350	400	452
	CFM each side - Y	50	75	100	125	150	175	200	223
AK = .76	Throw each side - X	3-6	4-8	6-11	7-14	8-16	10-19	11-22	13-25
	Throw each side -Y	3-5	4_7	5-9	6-11	7-13	8-15	9-18	10-20
12" X 21"	Total CFM	350	525	700	875	1050	1225	1400	1575
	CFM each side - X	124	188	250	313	375	438	500	559
	CFM each side - Y	51	75	100	125	150	175	200	229
AK = .88	Throw each side - X	3-6	5-9	6-12	8-15	9-18	11-21	12-24	13-26
	Throw each side -Y	3-5	4-7	5-9	6-11	7-13	8-16	9-18	10-20
12" X 24"	Total CFM	400	600	800	1000	1200	1400	1600	1800
	CFM each side - X	150	225	300	375	450	525	600	675
	CFM each side - Y	50	75	100	125	150	175	200	225
AK = 1.0	Throw each side - X	4_7	5-10	7-13	8-16	10-19	11-22	13-25	14-28
	Throw each side -Y	3-5	4-7	5-9	6-11	7-13	8-16	9-18	10-20
15" X 18"	Total CFM	375	563	750	938	1125	1313	1500	1688
	CFM each side - X	111	165	219	274	329	384	438	498
	CFM each side - Y	77	117	156	195	234	273	312	346
AK = .95	Throw each side - X	3-6	4-8	6-11	7-14	8-16	10-19	11-22	13-25
	Throw each side -Y	3-5	4-7	5-10	7-13	8-15	9-17	10-20	11-22
15" X 21"	Total CFM	438	657	876	1095	1313	1533	1750	1969
	CFM each side - X	140	211	282	353	422	494	563	630
	CFM each side - Y	79	118	156	195	235	273	312	355
AK = 1.1	Throw each side - X	3-6	5-9	6-12	8-15	9-18	11-21	12-24	14-27
	Throw each side -Y	3-5	4-8	5-10	7-13	8-15	9-18	10-20	12-23
15" X 24"	Total CFM	500	750	1000	1250	1500	1750	2000	2250
	CFM each side - X	173	259	345	431	518	604	690	776
	CFM each side - Y	77	116	155	194	232	271	310	349
AK = 1.26	Throw each side - X	4-7	5-10	7-13	8-16	10-19	11-22	13-26	15-29
	Throw each side -Y	3-5	4-8	5-10	7-13	8-15	9-18	10-20	12-23
18" X 21"	Total CFM	525	786	1048	1310	1572	1834	2096	2363
	CFM each side - X	150	224	299	374	448	523	598	674
	CFM each side - Y	113	169	225	281	338	394	450	674
AK = 1.32	Throw each side - X	3-6	4-8	6-11	7-13	8-16	10-19	11-21	12-24
	Throw each side -Y	3-5	4-7	5-10	6-12	7-14	9-17	10-19	11-21
18" X 24"	Total CFM	600	900	1200	1500	1800	2100	2400	2700
	CFM each side - X	183	275	366	458	549	641	732	824
	CFM each side - Y	117	175	234	292	351	409	468	526
AK = 1.5	Throw each side - X	3-6	5-9	6-12	8-15	9-17	10-20	12-23	13-26
		3-5	4-8	5-10	7-13	8-16	9-18	10-20	12-23

## PERFORMANCE DATA ROUND NECK SIZES SQUARE DIFFUSERS

## Model 4CCD



#### **ROUND NECK SIZES. SQUARE DIFFUSERS**

NECK SIZE	Fits on	NECK VELOCITY	200	300	400	500	600	700	800	900
(Inches)	Square neck	FPM								
		Total Press WG.	0.003	0.007	0.012	0.018	0.026	0.036	0.047	0.059
5 Dia.	9" x 9"	Total CFM	28	41	55	68	82	95	109	123
	9" X 9"	CFM each side	7	10	14	17	20	24	27	31
AK = .159		Throw each side	1-2	2_3	2_3	2_4	3_5	3_5	3_6	4_7
		Total Press WG.	0.004	0.009	0.015	0.024	0.034	0.045	0.06	0.075
6 Dia.		Total CFM	40	59	78	98	118	137	157	177
	9" x 9"	CFM each side	10	15	19	25	30	34	39	45
AK = .211	-	Throw each side	1-2	1-2	2_3	2_4	2_4	3_5	3_5	4-6
		Total Press WG.	0.007	0.016	0.028	0.043	0.062	0.083	0.11	0.14
8 Dia.		Total CFM	70	105	140	175	210	245	280	315
	9" x 9"	CFM each side	18	26	35	44	53	61	70	79
AK = .238		Throw each side	1-2	2_3	2_4	3_5	3_6	4_7	4_8	5-9
		Total Press WG.	0.006	0.013	0.023	0.035	0.05	0.067	0.086	0.11
10 Dia.		Total CFM	109	164	218	273	327	382	436	491
	12" x 12"	CFM each side	28	41	55	68	82	96	109	123
AK = .45		Throw each side	2_4	3_5	3_6	4-8	5_9	6-11	6-12	7_14
		Total Press WG.	0.005	0.012	0.02	0.031	0.043	0.058	0.075	0.094
12 Dia.		Total CFM	157	236	314	393	471	550	628	707
	15" x 15"	CFM each side	40	59	79	98	118	138	157	177
AK = .683		Throw each side	2_4	3_5	4_7	4_8	5-10	6-11	7_13	7-14
		Total Press WG.	0.009	0.019	0.032	0.049	0.069	0.093	0.12	0.15
14 Dia.		Total CFM	214	321	428	535	642	749	856	963
	15" x 15"	CFM each side	54	80	107	134	160	187	214	241
AK = .696		Throw each side	2_4	3_5	4_7	5_9	5-10	6-12	7_14	8-15
		Total Press WG.	0.008	0.017	0.029	0.045	0.063	0.084	0.11	0.134
16 Dia.		Total CFM	279	416	558	697	832	976	1116	1256
	18" X 18"	CFM each side	70	104	140	174	208	244	279	314
AK = .977		Throw each side	3_5	4_8	5_10	7_13	8-15	9_17	10-20	11-22
		Total Press WG.	0.003	0.006	0.011	0.017	0.024	0.033	0.042	0.054
8 Dia.		Total CFM	70	105	140	175	210	245	280	315
	21 " X 21"	CFM each side	18	26	35	44	53	61	70	79
AK = .347		Throw each side	2_3	2_4	3_5	3_6	4_7	4_8	5_9	5-10

#### MODEL: 4-CCD ROUND NECK SIZES CONT.

NECK SIZE	Fits on	NECK VELOCITY	200	300	400	500	600	700	800	900
(Inches)	Square neck	FPM	200	300	400	500	000	/00	300	500
(		Total Press WG.	0.003	0.007	0.014	0.021	0.03	0.039	0.051	0.064
10 Dia.		Total CFM	109	164	218	273	327	382	436	491
	21" X 21"	CFM each side	28	41	55	68	82	96	109	123
AK = .496		Throw each side	2_4	3_5	4_7	4_8	5-10	6-11	7_13	8-15
		Total Press WG.	0.004	0.009	0.016	0.024	0.034	0.046	0.059	0.074
12 Dia.		Total CFM	157	236	314	393	471	550	628	707
	21" X 21"	CFM each side	40	59	79	98	118	138	157	177
AK = .699		Throw each side	2_4	3_5	4_7	4_8	5-10	6-12	7-13	8-15
		Total Press WG.	0.005	0.01	0.018	0.028	0.033	0.053	0.069	0.086
14 Dia.		Total CFM	214	321	428	535	642	749	856	963
	21 X 21	CFM each side	54	80	107	134	160	187	214	241
AK = .952		Throw each side	2_4	3_6	4_7	5_9	6-11	7_13	7-14	8-16
		Total Press WG.	0.005	0.012	0.020	0.031	0.044	0.059	0.076	0.095
16 Dia.		Total CFM	279	416	558	697	832	976	1116	1256
	21 X 21	CFM each side	70	104	140	174	208	244	279	314
AK = 1.13		Throw each side	3_5	4_8	5_10	7-13	8-15	9_17	10_20	11-22
		Total Press WG.	0.007	0.015	0.025	0.038	0.054	0.072	0.092	0.11
18 Dia.	10 Be	Total CFM	354	531	708	885	1062	1239	1416	1593
	21 X 21	CFM each side	89	133	177	221	265	310	354	399
AK = 1.29		Throw each side	3_6	4_8	6-11	7-13	8-16	10_19	11-21	12-24
		Total Press WG.	0.009	0.02	0.034	0.052	0.073	0.098	0.13	0.16
20 Dia.		Total CFM	436	654	872	1090	1308	1526	1744	1962
	21 X 21	CFM each side	109	164	218	272	327	382	436	491
AK = 1.35		Throw each side	3_6	5_9	6-12	8-15	9_17	10_20	12-23	13_26

Diffuser selection which will result in noise criteria not exceeding. Approximately 20 dB based on a room attenuation of 8 dB.

Resulting Criteria not exceeding 30 dB.

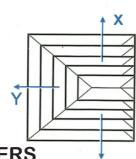
Resulting Criteria not exceeding approximately 40 dB.

Resulting Criteria not exceeding 40 dB.

## PERFORMANCE DATA3 WAY SQUARE DIFFUSER

## PERFORMANCE DATA 3 WAY RECTANGULAR DIFFUSER

# Model 3SCD



#### **THREE- WAY THROW SQUARE DIFFUSERS**

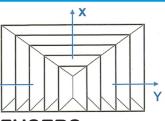
NECK SIZE	NECK VELOCITY	200	300	400	500	600	700	800	900
AK	FPM	200	300	400	500	600	700	800	900
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
6" X 6"	Total CFM	50	75	100	125	150	175	200	225
	CFM each side - X	19	28	38	47	56	66	75	85
	CFM each side - Y	13	19	25	32	38	44	50	56
AK = .13	Throw each side - X	2_3	3_5	4_7	4_8	5-10	6-11	7_13	8-15
	Throw each side -Y	2_3	2_4	3_5	3_6	4_8	5_9	5_10	6-11
9" X 9"	Total CFM	112	168	224	280	336	392	448	504
	CFM each side - X	42	63	84	105	126	147	168	189
	CFM each side - Y	28	43	56	70	85	98	112	126
AK = .28	Throw each side - X	2_4	3_6	4_8	5_10	6-11	7_13	8-15	9_17
	Throw each side -Y	2_3	3_5	4_7	4_8	5-10	6-12	7_13	8-15
12" X 12"	Total CFM	200	300	400	500	600	700	800	900
	CFM each side - X	75	113	150	188	225	263	300	338
	CFM each side - Y	50	75	100	125	150	175	200	225
AK = .5	Throw each side - X	3_5	4_7	5_9	6-12	7_14	8-16	9_18	10_20
	Throw each side -Y	2_4	3_6	4_8	5-10	6-12	7-14	8-16	9-18
15" X 15"	Total CFM	312	468	624	780	936	1092	1248	1404
	CFM each side - X	117	175	235	293	350	410	469	527
	CFM each side - Y	78	118	150	195	235	272	312	351
AK = .79	Throw each side - X	3_6	4_8	6-11	7_13	8-16	10_19	11-21	13-25
	Throw each side -Y	3_5	4_7	5_9	6-11	7_14	8-16	10-19	18-21
18" X 18"	Total CFM	450	675	900	1125	1350	1575	1800	2025
	CFM each side - X	169	253	338	422	506	591	675	760
	CFM each side - Y	113	169	225	281	338	394	450	506
AK = 1.13	Throw each side - X	4_7	5_9	7_13	8-16	10-19	11-22	13-25	14-28
	Throw each side -Y	3_5	4_8	5_10	6-12	8-15	9_17	10-20	11-22
21" X 21"	Total <b>CFM</b>	612	918	1224	1530	1836	2142	2448	2754
	CFM each side - X	230	345	459	574	689	804	919	1033
	CFM each side - Y	153	230	306	382	459	535	612	689
AK = 1.54	Throw each side - X	4_7	5-10	7_13	9_17	10-20	12-23	13-26	15-29
	Throw each side -Y	3_6	4_8	6-11	7_14	8-16	10_19	11-22	13-25
24" X 24"	Total CFM	800	1200	1600	2000	2400	2800	3200	3600
	CFM each side - X	300	450	600	750	900	1050	1200	1350
	CFM each side - Y	200	300	400	500	600	700	800	900
AK = 2	Throw each side - X	4_8	6-11	8-15	10-19	11-22	13_26	15_30	17_33
	Throw each side -Y	3_6	5_9	6-12	8-15	9_18	11-21	12-24	14-27

# Model 3RCD

#### THREE- WAY THROW RECTANGULAR DIFFUSERS

	NECK SIZE AK	NECK VELOCITY FPM	200	300	400	500	600	700	800	900
ł		Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
t	6" X 9"	Total CFM	75	113	150	190	225	263	300	338
		CFM each side - X	28	43	56	70	85	98	112	125
		CFM each side - Y	25	35	47	60	70	83	94	107
	AK = .19	Throw each side - X	2-3	2_4	3-5	3_6	4-8	5-9	5-10	6-11
		Throw each side -Y	1-2	2-3	2-4	3-5	3-6	4_7	4-8	5-10
	6" X 12"	Total CFM	100	150	200	250	300	350	400	450
		CFM each side - X	50	75	100	125	150	175	200	225
		CFM each side - Y	25	38	50	63	75	88	100	113
	AK = .25	Throw each side - X	2-3	2_4	3_6	4_7	4-8	5-10	6-11	7-13
		Throw each side -Y	1-2	2-3	2_4	3-5	3-6	4_7	4-8	5-9
	6" X 15"	Total CFM	125	188	250	312	375	438	500	563
		CFM each side - X	79	118	156	195	235	273	312	352
		CFM each side - Y	24	35	47	59	70	83	94	106
	AK = .32	Throw each side - X	2_4	3_5	4_7	5-9	5-10	6-12	7-14	8-15
		Throw each side -Y	1-2	2-3	2_4	3-5	3_6	4_7	4-8	5-9
	6" X 18"	Total CFM	150	225	300	375	450	525	600	675
		CFM each side - X	113	169	225	281	338	394	450	506
		CFM each side - Y	19	28	38	47	56	66	75	85
	AK = .38	Throw each side - X	2_4	3-6	4-8	5-10	6-12	7-14	8-16	9-18
ł		Throw each side -Y	1-2	2-3	2-4	2-4	3-5	3-6	4_7	4-8
1	6" X 21"	Total CFM	175	263	350	438	525	612	700	788
1		CFM each side - X	154	230	306	382	459	535	612	694
		CFM each side - Y	11	17	22	28	33	39	44	47
1	AK = .44	Throw each side - X	3-6	5-9	7-13	7-14	9-17	10-20	12-23	13-26
H		Throw each side -Y	1-2	1-2	2-3	2-4	2-4	3-5	3-6	3-6
	6" X 24"	Total CFM	200	300	400	500	600	700	800	900
		CFM each side - X	50	75	100	125	150	175	200	225
		CFM each side - Y	150	225	300	375	450	525	600	675
	AK = .5	Throw each side - X	2-3	2-4	3-5	3-6	4-7	4-8	5-9	5-10
ł	0" ¥ 40"	Throw each side -Y	4-7	5-10	7-13	8-16	10-20	12-23	13-26	15-29
	9" X 12"	Total CFM CFM each side - X	150 50	225 75	300 100	375 125	450 150	525 175	600 200	675 225
		CFM each side - X	50	75	100	125	150	175	200	225
	AK = .38	Throw each side - X	2_4	3-6	4-8	5-10	6-12	7-14	8-16	9-18
	AK50	Throw each side - X	2-4	3-6	4-8	5-10	6-12	7-14	8-16	9-18
	9" X 15"	Total CFM	188	282	375	470	563	657	750	844
	5 . 15	CFM each side - X	79	118	156	195	235	273	312	355
		CFM each side - Y	55	82	110	137	164	192	219	245
	AK = .47	Throw each side - X	3-6	5-9	6-11	7-14	9-17	10-19	11-22	13-25
		Throw each side -Y	2-4	3-6	4-8	5-10	6-12	7-14	13-16	9-17
ł	9" X 18"	Total CFM	225	338	450	562	675	788	900	1013
		CFM each side - X	113	169	225	281	338	394	450	507
		CFM each side - Y	56	85	113	140	169	197	225	253
	AK = .57	Throw each side - X	3-6	5-9	6-12	8-15	9-18	11-21	12-24	14-27
		Throw each side -Y	2-4	3-5	4-7	4-8	5-10	6-12	7-13	8-15

# **Professional**



## PERFORMANCE DATA 3 WAY RECTANGULAR DIFFUSER

## PERFORMANCE DATA2 WAY SQUARE DIFFUSER

#### MODEL: 3-RCD CONT.

NECK SIZE	NECK VELOCITY	200	300	400	500	600	700	800	900	
AK	FPM Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30	ł
9" X 21"	Total CFM	262	393	524	656	786	917	1050	1179	ł.
5 821	CFM each side - X	152	230	306	382	459	535	612	684	
	CFM each side - Y	55	82	109	137	163	191	218	248	L
AK = .66	Throw each side - X	4_7	6-11	7-14	9-18	11-21	13-25	14-28	16-31	L
	Throw each side -Y	2-3	3-5	3-6	4-7	5-9	5-10	6-11	7-13	
9" X 24"	Total CFM	300	450	600	750	900	1050	1200	1350	
	CFM each side - X	100	150	200	250	300	350	400	450	L
	CFM each side - Y	100	150	200	250	300	350	400	450	
AK = .76	Throw each side - X	2_4	3-6	4-8	5-10	6-12	7-14	8-16	9-18	
	Throw each side -Y	2-4	3-6	4-8	5-10	6-12	7-14	8-16	9-18	Ł
12" X 15"	Total CFM	250	375	500	625	750	875	1000	1125	L
	CFM each side - X	78	118	156	195	235	273	312	349	
AK = .63	CFM each side - Y Throw each side - X	86	129 4-7	172	215	258	301	344 10-19	388	
AK = .05	Throw each side - X	3-5 3-6	4-7	5-10 6-11	6-12 7-13	8-15 8-16	9-17 10-19	10-19	11-21 12-24	
12" X 18"	Total CFM	300	450	600	750	900	1050	11-21	1350	t
12 × 10	CFM each side - X	114	169	225	281	338	394	450	513	ł.
	CFM each side - Y	93	140	188	235	281	328	375	419	L
AK = .76	Throw each side - X	3-6	5-9	6-12	7-14	9-17	10-20	12-23	13-26	L
	Throw each side -Y	3-5	4-7	5-10	6-12	7-14	9-17	10-19	11-21	Ľ.
12" X 21"	Total CFM	350	525	700	875	1050	1225	1400	1575	1
	CFM each side - X	154	230	306	382	459	535	612	693	L
	CFM each side - Y	98	148	197	242	296	345	394	441	L
AK = .88	Throw each side - X	4_7	5-10	7-14	9-17	10-20	12-23	14-27	15-30	L
	Throw each side -Y	2-4	3-6	4-8	5-10	6-12	7-14	8-16	9-18	
12" X 24"	Total CFM	400	600	800	1000	1200	1400	1600	1800	L
	CFM each side - X	150	225	300	375	450	525	600	675	L
	CFM each side - Y	125	188	250	313	375	438	500	563	L
AK = 1.0	Throw each side - X	4-8	6-11	8-15	10-19	12-23	13-26	15-30	17-34	E
	Throw each side -Y	4-7	5-9	7-13	8-16	10-19	11-22	13-25	14-27	4
15" X 18"	Total CFM	375	563	750	938	1125	1313	1500	1688	L
	CFM each side - X	113	169	225	281	338	394	450	506	L
AK = .95	CFM each side - Y Throw each side - X	131 3-5	197 4_8	263 6-11	328 7-13	394 8-16	460 9-18	525 11-21	591 12-23	L
AK55	Throw each side - Y	3-6	5-9	6-12	8-15	9-18	11-21	12-24	14-27	L
15" X 21"	Total CFM	438	657	876	1095	1313	1533	1750	1969	1
13 1121	CFM each side - X	154	230	306	382	459	535	612	689	L
	CFM each side - Y	142	214	285	357	428	499	569	640	L
AK = 1.1	Throw each side - X	4-7	5-10	7-13	8-16	10-19	11-21	12-24	14-27	L
	Throw each side -Y	3-6	5-9	6-12	8-15	9-17	10-20	12-23	13-26	L
15" X 24"	Total CFM	500	750	1000	1250	1500	1750	2000	2250	1
	CFM each side - X	200	300	400	500	600	700	800	900	
	CFM each side - Y	150	225	300	375	450	525	600	675	
AK = 1.26	Throw each side - X	4-7	6-11	7-14	9-18	11-21	12-24	14-28	16-31	L
	Throw each side -Y	3-6	4-8	6-11	7-13	8-16	9-18	11-21	12-24	
18" X 21"	Total CFM	525	786	1048	1310	1572	1834	2096	2363	L
	CFM each side - X	153	230	306	382	459	535	612	686	L
	CFM each side - Y	186	278	371	464	557	650	742	839	
AK = 1.32	Throw each side - X	3-6	4_8	6-11	7-14	8-16	10-19	11-22	12-24	
4.00 14 2.00	Throw each side -Y	4-7	5-10	7-13	9-17	10-20	12-23	13-26	15-30	ł
18" X 24"	Total CFM	600	900	1200	1500	1800	2100	2400	2700	
	CFM each side - X	250	375	500	625	750	875	1000	1125	L
AK - 1 5	CFM each side - Y	175	263	350	438	525	613 14.27	670	788	L
AK = 1.5	Throw each side - X	4_8	6-12	8-16	10-20	12-23	14-27	16-31	18-35	1

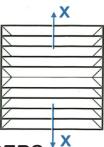
# Model 2SCD

## TWO- WAY THROW SQUARE DIFFUSERS

NECK SIZE	NECK VELOCITY	200	300	400	500	600	700	800	900
AK	FPM	200	500	400	500	000	700	800	900
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
6" X 6"	Total CFM	50	75	100	125	150	175	200	225
	CFM each side - X	25	38	50	63	75	88	100	113
AK = .13	Throw each side - X	2_4	3_6	4_7	5_9	6-11	7-13	8-15	9-16
9" X 9"	Total CFM	112	168	224	280	336	392	448	504
	CFM each side - X	56	84	112	140	168	196	224	252
AK = .28	Throw each side - X	3_5	4_7	5_9	6-12	7_14	8-16	9_18	11-21
12" X 12"	Total CFM	200	300	400	500	600	700	800	900
	CFM each side - X	100	150	200	250	300	350	400	450
AK = .5	Throw each side - X	3_6	4_9	6-11	7_14	9_17	10-19	11-22	13-25
15" X 15"	Total CFM	312	468	624	780	936	1092	1248	1404
	CFM each side - X	156	234	312	390	468	546	624	702
AK = .79	Throw each side - X	4_7	5_10	7_13	8-16	11_19	11_22	13_25	14-28
18" X 18"	Total CFM	450	675	900	1125	1350	1575	1800	2025
	CFM each side - X	225	338	450	563	675	788	900	1013
AK = 1.13	Throw each side - X	4_8	6-11	7_14	9_18	11_21	13-25	14-28	16_31
21" X 21"	Total CFM	612	918	1224	1530	1836	2142	2448	2754
	CFM each side - X	306	459	612	765	918	1071	1225	1377
AK = 1.54	Throw each side - X	5_9	6-12	8-16	10_20	13_25	15-29	17_33	19_37
24" X 24"	Total CFM	800	1200	1600	2000	2400	2800	3200	3600
	CFM each side - X	400	600	800	1000	1200	1400	1600	1800
AK = 2	Throw each side - X	5_10	7_14	10_19	12-23	14-28	17-33	19_37	21-42

Diffuser selection which will result in noise criteria not exceeding. Approximately 20 dB based on a room attenuation of 8 dB. Resulting Criteria not exceeding 30 dB. Resulting Criteria not exceeding approximately 40 dB.

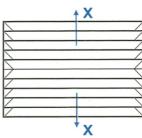
Resulting Criteria not exceeding 40 dB.



## PERFORMANCE DATA 2 WAY RECTANGULAR DIFFUSER

## PERFORMANCE DATA 2 WAY RECTANGULAR DIFFUSER

# Model 2RCD



#### **TWO- WAY THROW RECTANGULAR DIFFUSERS**

NECK SIZE AK	NECK VELOCITY FPM	200	300	400	500	600	700	800	900
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
6" X 9"	Total CFM	75	113	150	190	225	263	300	338
	CFM each side - X	38	57	75	95	113	130	150	169
AK = .19	Throw each side - X	3_5	4_7	5_9	6-11	7-13	8-15	9_17	10-20
6" X 12"	Total CFM	100	150	200	250	300	350	400	450
	CFM each side - X	50	75	100	125	150	175	200	225
AK = .25	Throw each side - X	3_5	4_8	5-10	6-12	8-15	9-18	10-20	11-22
6" X 15"	Total CFM	125	188	250	312	375	438	500	563
	CFM each side - X	63	94	125	156	188	219	250	282
AK = .32	Throw each side - X	3_5	4_7	5-9	6-12	7-14	9-17	10-19	11-22
6" X 18"	Total CFM	150	225	300	375	450	525	600	675
	CFM each side - X	75	113	150	188	225	263	300	338
AK = .38	Throw each side - X	3_5	4_8	5-10	7-13	8-15	9-18	10-20	12-23
6" X 21"	Total CFM	175	263	350	438	525	612	700	788
	CFM each side - X	88	132	175	219	263	306	350	394
AK = .44	Throw each side - X	3_6	4_8	6-11	7-14	8-16	10-19	11-22	16-25
6" X 24"	Total CFM	200	300	400	500	600	700	800	900
	CFM each side - X	100	150	200	250	300	350	400	450
AK = .5	Throw each side - X	3_6	5_9	6-12	8-15	9_18	10-20	12-23	13-26
9" X 12"	Total CFM	150	225	300	375	450	525	600	675
	CFM each side - X	75	113	150	188	225	263	300	338
AK = .38	Throw each side - X	3_5	4_8	5-10	7-13	8-15	9-18	10-20	13-23
9" X 15"	Total CFM	188	282	375	470	563	657	750	844
	CFM each side - X	94	141	188	235	283	328	375	422
AK = .47	Throw each side - X	3_6	4_8	6-11	7-13	8-16	10-19	11-21	12-25
9" X 18"	Total CFM	225	338	450	562	675	788	900	1013
	CFM each side - X	113	169	225	281	338	394	450	507
AK = .57	Throw each side - X	3_6	4_8	6-11	7-14	8-16	10-19	11-22	12-24

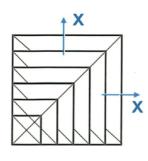
### MODEL : 2-RCD CONT.

NECK SIZE	NECK VELOCITY	200	200	400	500	600	700	800	900
AK	FPM	200	300	400	500	000	700	800	900
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
9" X 21"	Total CFM	262	393	524	656	786	917	1050	1179
	CFM each side - X	131	196	262	328	393	459	524	590
AK = .66	Throw each side - X	3_6	5_6	6-12	8-15	9-18	10-20	12-23	13-26
9" X 24"	Total CFM	300	450	600	750	900	1050	1200	1350
	CFM each side - X	150	225	300	375	450	525	600	675
AK = .76	Throw each side - X	4_7	5-10	7-13	8-16	10-19	11-22	13-25	14-28
12" X 15"	Total CFM	250	375	500	625	750	875	1000	1125
	CFM each side - X	125	188	250	313	375	438	500	563
AK = .63	Throw each side - X	3_6	5_9	6-12	8-15	9-18	10-20	12-23	13-26
12" X 18"	Total CFM	300	450	600	750	900	1050	1200	1350
	CFM each side - X	150	225	300	375	450	525	600	675
AK = .76	Throw each side - X	3_6	5_9	6-12	8-16	10-19	11-22	13-25	14-28
12" X 21"	Total CFM	350	525	700	875	1050	1225	1400	1575
	CFM each side - X	175	263	350	438	525	613	700	788
AK = .88	Throw each side - X	4_7	5_10	7-13	8-16	10-20	12-23	13-26	15-30
12" X 24"	Total CFM	400	600	800	1000	1200	1400	1600	1800
	CFM each side - X	200	300	400	500	600	700	800	900
AK = 1.0	Throw each side - X	4_7	6-11	7_14	9-18	11-21	13-25	14-28	16-32
15" X 18"	Total CFM	375	563	750	938	1125	1313	1500	1688
	CFM each side - X	188	282	375	469	563	657	750	844
AK = .95	Throw each side - X	3_6	5-10	7-13	8-16	10-19	12-23	13-26	15-29
15" X 21"	Total CFM	438	657	876	1095	1313	1533	1750	1969
	CFM each side - X	219	329	438	548	657	767	875	985
AK = 1.1	Throw each side - X	4_7	6-11	8-15	10-19	12-23	13-26	15-30	17-33
15" X 24"	Total CFM	500	750	1000	1250	1500	1750	2000	2250
	CFM each side - X	250	375	500	625	750	875	1000	1125
AK = 1.26	Throw each side - X	4_8	6-12	8-16	10_20	12-24	14-28	16-32	18-36
18" X 21"	Total CFM	525	786	1048	1310	1572	1834	2096	2363
	CFM each side - X	263	393	524	655	786	917	1048	1182
AK = 1.32	Throw each side - X	4_8	6-12	8-15	10_19	12-23	14-27	15-30	17-34
18" X 24"	Total CFM	600	900	1200	1500	1800	2100	2400	2700
	CFM each side - X	300	450	600	750	900	1050	1200	1350
AK = 1.5	Throw each side - X	4-8	6-12	8-16	10-20	12-24	14-28	16-32	18-36

## PERFORMANCE DATA 2 WAY SQUARE DIFFUSER

## PERFORMANCE DATA 1 WAY SQUARE DIFFUSER

# Model 2CSCD



# Model 1SCD

#### **TWO- WAY THROW SQUARE DIFFUSERS**

NECK SIZE AK	NECK VELOCITY FPM	200	300	400	500	600	700	800	900
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
6" X 6"	Total CFM	50	75	100	125	150	175	200	225
	CFM each side - X	25	38	50	63	75	88	100	113
AK = .13	Throw each side - X	2_4	3_6	4_7	5_9	6-11	7-13	8-15	8-16
9" X 9"	Total CFM	112	168	224	280	336	392	448	504
	CFM each side - X	56	84	112	140	168	196	224	252
AK = .28	Throw each side - X	3_5	4_7	5_9	6-12	7_14	8-16	9-18	11-21
12" X 12"	Total CFM	200	300	400	500	600	700	800	900
	CFM each side - X	100	150	200	250	300	350	400	450
AK = .5	Throw each side - X	3_6	4_9	6-11	7-14	9_17	10-17	11-22	13-25
15" X 15"	Total CFM	312	468	624	780	936	1092	1248	1404
	CFM each side - X	156	234	312	390	468	546	624	702
AK = .79	Throw each side - X	4_7	5-10	7-13	8-16	11-19	11-22	13-25	14-28
18" X 18"	Total CFM	450	675	900	1125	1350	1575	1800	2025
	CFM each side - X	225	338	450	563	675	788	900	1013
AK = 1.13	Throw each side - X	4_8	6-11	7-14	9_18	11-21	13-25	14-28	16-31
21" X 21"	Total CFM	612	918	1224	1530	1836	2142	2448	2754
	CFM each side - X	306	459	612	765	918	1071	1225	1377
AK = 1.54	Throw each side - X	9_9	6-12	8-16	10-20	13-25	15-29	17-33	19_37
24" X 24"	Total CFM	800	1200	1600	2000	2400	2800	3200	3600
	CFM each side - X	400	600	800	1000	1200	1400	1600	1800
AK = 2	Throw each side - X	5_10	7_14	10-19	12-23	14-28	17-33	19_37	21_42

Diffuser selection which will result in noise criteria not exceeding.

Approximately 20 dB based on a room attenuation of 8 dB.

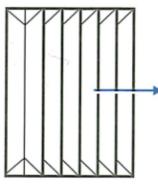
Resulting Criteria not exceeding 30 dB.

Resulting Criteria not exceeding approximately 40 dB.

Resulting Criteria not exceeding 40 dB.

## **ONE- WAY THROW SQUARE DIFFUSERS**

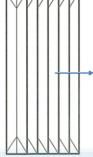
NECK SIZE AK	NECK VELOCITY FPM	200	300	400	500	600	700	800	900
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
6" X 6"	Total CFM	50	75	100	125	150	175	200	225
AK = .13	Throw	3_5	4_7	5_10	7_13	8-15	9_18	10_20	12-23
9" X 9"	Total CFM	112	168	224	280	336	392	448	504
AK = .28	Throw	3_6	4_8	5-12	8-15	9-18	11-21	12-23	13-26
12" X 12"	Total CFM	200	300	400	500	600	700	800	900
AK = .5	Throw	4-7	6-11	7-14	9-18	10-20	12-24	14-28	16-31
15" X 15"	Total CFM	312	468	624	780	936	1092	1248	1404
AK = .79	Throw	4_7	5-10	8-15	9_18	11-22	13-26	15-29	17_33
18" X 18"	Total CFM	450	675	900	1125	1350	1575	1800	2025
AK = 1.13	Throw	5-10	7-14	10-19	12-23	14-28	17-33	19_37	21-42
21" X 21"	Total CFM	612	918	1224	1530	1836	2142	2448	2754
AK = 1.54	Throw	6-11	9_17	11-22	14_27	17_33	19-38	21_42	24_48
24" X 24"	Total CFM	800	1200	1600	2000	2400	2800	3200	3600
AK = 2	Throw	6-12	10-19	13-25	16_31	19_37	22-34	25_49	28-55



## PERFORMANCE DATA 1 WAY RECTANGULAR DIFFUSER

## PERFORMANCE DATA 1 WAY RECTANGULAR DIFFUSER

# Model 1RCD



#### ONE- WAY THROW RECTANGULAR DIFFUSERS

NECK SIZE AK	NECK VELOCITY FPM	200	300	400	500	600	700	800	900
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
6" X 9"	Total CFM	75	113	150	190	225	263	300	338
AK = .19	Throw	3_6	5_9	6-12	8-15	9-17	10-20	12-23	13-26
6" X 12"	Total CFM	100	150	200	250	300	350	400	450
AK = .25	Throw	4_7	5-10	7-13	8-16	10-19	11-22	13-25	15-29
6" X 15"	Total CFM	125	188	250	312	375	438	500	563
AK = .32	Throw	4_7	5_10	7-13	9_17	10-20	12-23	13-26	15_30
6" X 18"	Total CFM	150	225	300	375	450	525	600	675
AK = .38	Throw	4_7	5_10	7_14	9_17	10-20	12-24	14-27	15_30
6" X 21"	Total CFM	175	263	350	438	525	612	700	788
AK = .44	Throw	4_8	6-11	8-15	9_18	11-22	13_25	15-29	17-33
6" X 24"	Total CFM	200	300	400	500	600	700	800	900
AK = .5	Throw	4_8	6-12	8-16	10-19	12-23	14-27	16-31	18-35
9" X 12"	Total CFM	150	225	300	375	450	525	600	675
AK = .38	Throw	4_7	5_10	7_14	9_17	10-20	12-24	14_27	15_30
9" X 15"	Total CFM	188	282	375	470	563	657	750	844
AK = .47	Throw	4_7	5_10	7_14	9_17	10-20	13-25	14-28	16-31
9" X 18"	Total CFM	225	338	450	562	675	788	900	1013
AK = .57	Throw	4_8	6-11	8-15	10-19	11-22	13-25	15-29	17-33

NECK SIZE AK	NECK VELOCITY FPM	200	300	400	500	600	700	800	900
	Total Pressure	0.019	0.039	0.067	0.10	0.14	0.19	0.24	0.30
9" X 21"	Total CFM	262	393	524	656	786	917	1050	1179
AK = .66	Throw	4_8	6_11	8-15	10_19	12_23	14_27	15_30	17_34
9" X 24"	Total CFM	300	450	600	750	900	1050	1200	1350
AK = .76	Throw	4_8	6_12	8-16	10_20	12_24	14_28	16_32	18_36
12" X 15"	Total <b>CFM</b>	250	375	500	625	750	875	1000	1125
AK = .63	Throw	4_8	6_12	8_16	10_20	12_24	14_27	16_31	18_35
12" X 18"	Total CFM	300	450	600	750	900	1050	1200	1350
AK = .76	Throw	4_8	6_12	9_17	11_21	13_25	15_30	17_34	19_38
12" X 21"	Total CFM	350	525	700	875	1050	1225	1400	1575
AK = .88	Throw	4_8	7_13	9_18	11_22	14_27	16_32	19_37	21_41
12" X 24"	Total CFM	400	600	800	1000	1200	1400	1600	1800
AK = 1.0	Throw	5_9	7_14	10_19	12-23	14_28	17_33	19_38	21_42
15" X 18"	Total CFM	375	563	750	938	1125	1313	1500	1688
AK = .95	Throw	5_9	7_14	9_18	12-23	14_27	16_32	18_36	21_41
15" X 21"	Total CFM	438	657	876	1095	1313	1533	1750	1969
AK = 1.1	Throw	5_9	7_14	9_18	12-23	14_27	16_32	18_37	20_42
15" X 24"	Total CFM	500	750	1000	1250	1500	1750	2000	2250
AK = 1.26	Throw	5_10	8_15	10_19	12_24	15_29	17_34	20_39	22_44
18" X 21"	Total CFM	525	786	1048	1310	1572	1834	2096	2363
AK = 1.32	Throw	5_10	8_15	10_20	13_25	15_30	18_35	20_40	23_45
18" X 24"	Total CFM	600	900	1200	1500	1800	2100	2400	2700
AK = 1.5	Throw	6_11	8_16	11_22	14_27	16_32	19_37	22_34	24_48

Diffuser selection which will result in noise criteria not exceeding.

Approximately 20 dB based on a room attenuation of 8 dB.

Resulting Criteria not exceeding 30 dB.

Resulting Criteria not exceeding approximately 40 dB.

Resulting Criteria not exceeding 40 dB.

Diffuser selection which will result in noise criteria not exceeding. Approximately 20 dB based on a room attenuation of 8 dB.

Resulting Criteria not exceeding 30 dB.

Resulting Criteria not exceeding approximately 40 dB.

Resulting Criteria not exceeding 40 dB.

#### MODEL: 1-RCD CONT.

## CIRCULAR CEILING DIFFUSERS CSCD & CRCD

## TYPES

- CSCD : Circular supply ceiling diffuser .
- CRCD : Circular return ceiling diffuser .

## MATERIALS

•Frame and inner cones : aluminium construction. •Damper frame and blades: galvanized sheets steel.

## FINISH

•Standard electrostatic white paint , other colours available on request



• Circular ceiling diffuser are designed for application in air conditioning ,ventilation and forced air heating systems as supply or return diffuser , are suitable for installation in most commercial and residential applications.

• The diffuser can be used for ceiling or exposed duct mounting and has a fixed horizontal air pattern.

 Circular ceiling diffuser in fact, do ensure acceptable sound level, low pressure drop and high induction rate with ambient air.

- Inner cones fixed rigidly to the frame.
- Available fixed horizontal air pattern diffuser having flush inner cones or fixed horizontal air pattern diffuser with projecting inner cones
- · Circular ceiling diffuser are easily and quickly installed , due to its removable core .

•The standard butterfly damper in supply diffuser can be easily adjusted through the face of the unit by means of screw drive.









## CIRCULAR DAMPER

## **DIMENSION**AL





## **1-BUTTERFLY DAMPER**

Galvanized steel material

A butterfly damper that provides simple , easy , economical control of air volume . Friction pivots on heavy-gauge metal blades keep blades at desired setting.

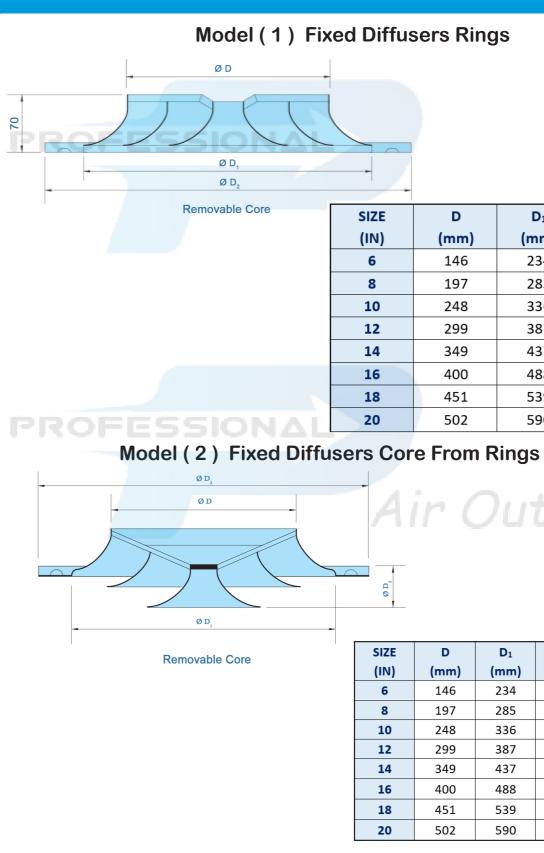


## **2-RADIAL DAMPER**

. Galvanized steel material

Gang operated radial blades side, each blade over the next, at right angles to the airflow.

It is separately mounted in the duct , just above the diffuser. Adjusts with a screw driver from the face side of the diffuser



-			
ZE	D	<b>D</b> 1	<b>D</b> <sub>2</sub>
V)	(mm)	(mm)	(mm)
5	146	234	298
3	197	285	349
0	248	336	400
2	299	387	451
4	349	437	501
6	400	488	552
8	451	539	603
0	502	590	654

Air Outlets

SIZE	D	<b>D</b> 1	<b>D</b> <sub>2</sub>	D <sub>3</sub>
(IN)	(mm)	(mm)	(mm)	(mm)
6	146	234	298	30
8	197	285	349	45
10	248	336	400	60
12	299	387	451	75
14	349	437	501	90
16	400	488	552	98
18	451	539	603	112
20	502	590	654	126

## PERFORMANCE DATA

## Model (1) Fixed Diffusers Rings

			Outlets Velocity ( FPM )								
Neck		400	500	600	700	800	900	1000	1200	1400	
Size					Total I	Pressure ( Inche	s water )				
(IN)		0.025	0.04	0.057	0.077	0.099	0.12	0.15	0.22	0.30	
6	CFM	80	100	120	135	155	175	195	235	275	
	Throw	2_4	3_5	3_5	4_6	4_6	5_7	5_7	6-8	6-8	
	NC	< 20	< 20	< 20	< 20	23	26	30	35	40	
	CFM	140	175	210	245	280	315	350	420	490	
8	Throw	3_5	4_6	4_7	5_7	6-8	6_8	7_9	7-10	8-11	
	NC	< 20	< 20	21	26	31	34	37	44	48	
	CFM	220	275	325	380	435	490	545	655	765	
10	Throw	5_7	5_8	6_9	7_9	8-10	8-11	9-12	10-13	11-14	
	NC	< 20	< 20	< 20	21	26	30	33	39	45	
212	CFM	315	395	470	550	630	705	785	940	1100	
12	Throw	5_7	6_9	7_10	8-11	9-12	10-13	10-14	11-15	13-16	
	NC	< 20	< 20	< 20	22	26	30	33	39	45	
	CFM	430	535	640	750	855	965	1070	1285	1500	
14	Throw	6_8	7-10	8-11	9-12	10-13	11-15	12-16	13-17	15-19	
	NC	< 20	< 20	23	28	32	36	40	46	49	
	CFM	560	700	840	980	1120	1260	1400	1680	1960	
16	Throw	7-10	8-12	10-13	11-15	12-16	13-17	14-18	15-20	17-21	
	NC	< 20	< 20	22	27	31	35	39	44	49	
	CFM	710	885	1060	1240	1415	1595	1770	2125	2480	
18	Throw	7-11	9-12	10-14	12-16	13-17	14-19	16-20	18-22	19_24	
	NC	< 20	< 20	21	26	30	34	37	43	48	
	CFM	870	1090	1310	1525	1745	1960	2180	2615	3050	
20	Throw	8-12	10-14	12-16	14-17	15-19	16-21	17-22	19_24	21-26	
	NC	< 20	< 20	21	26	30	34	38	43	48	

#### NOTE :

. The Maximum Throw Dimension in feet is based on a Terminal Velocity of 50 FPM . . The Minimum Throw Dimension in feet is based on a Terminal Velocity of 100 FPM . . NC Values are based on a room of 8 dB.

## PERFORMANCE DATA

## Model (2) Fixed Diffusers Core From Rings

		Outlets Velocity ( FPM )									
Neck		400	500	600	700	800	900	1000	1200	1400	
Size					Total Pre	essure ( Inche	s water )				
(IN)		0.021	0.033	0.047	0.064	0.084	0.106	0.131	0.189	0.257	
	CFM	80	100	120	140	160	180	200	235	275	
6	Throw	2_5	3_6	3_7	4_7	5-8	5_8	6_9	7_9	7_10	
	NC	< 20	< 20	20	25	29	32	35	41	45	
	CFM	140	175	210	245	280	315	350	420	490	
8	Throw	3_6	4_7	4_9	5_10	6_10	6-12	7_11	9_12	10-13	
	NC	< 20	< 20	21	26	30	33	36	42	47	
	CFM	220	275	325	380	435	490	545	655	765	
10	Throw	4_7	5_9	6-11	7-12	7-13	8-13	9_14	11_16	12-17	
	NC	< 20	< 20	22	27	31	34	37	43	47	
	CFM	315	390	470	550	630	705	785	940	1100	
12	Throw	4_9	6-11	7_13	8-14	9-15	10-16	11_17	13-19	14-20	
	NC	< 20	< 20	23	27	31	35	38	43	48	
	CFM	425	530	635	745	850	955	1060	1270	1490	
14	Throw	5-10	6-13	8-15	9_17	10-18	12-19	13-20	15-20	17-23	
	NC	< 20	< 20	23	28	32	35	39	44	49	
	CFM	560	700	840	980	1120	1260	1400	1680	1960	
16	Throw	6-12	7_15	9-18	10_19	12-20	13-22	15-23	18-25	19_27	
	NC	< 20	< 20	24	28	32	36	39	45	49	
	CFM	710	885	1060	1240	1415	1595	1770	2125	2480	
18	Throw	7-13	8-17	10-20	12-21	13-23	15-24	17_26	20-28	21_30	
	NC	< 20	< 20	24	29	33	36	40	45	50	
	CFM	870	1100	1310	1525	1750	1960	2180	2615	3050	
20	Throw	7-15	6-19	11-22	13-24	15-25	17-27	10_28	22_31	24_34	
	NC	< 20	< 20	25	29	33	37	40	45	50	

#### NOTE :

. The Maximum Throw Dimension in feet is based on a Terminal Velocity of 50  $\ensuremath{\mathsf{FPM}}$  . . The Minimum Throw Dimension in feet is based on a Terminal Velocity of 100  $\ensuremath{\mathsf{FPM}}$  . . NC Values are based on a room of 8 dB.

