



-METRIC SYSTEM-

EFFECTIVE AREA Ak(m2)

Neck Size - mm	150x150	225x225	300x300	375x375	450x450	525x525	600x600
Effective Area-Ak m ²	0,0109	0,0244	0,0435	0,0679	0,0978	0,1331	0,1739

Table-1

QUICK SELECTION TABLE

Neck Size WxH mm x mm	Effective Area m ²	AIR VELOCITY m/s													
		1,5 m/s		2,0 m/s		2,5 m/s		3,0 m/s		4,0 m/s		5,0 m/s		6,0 m/s	
150x150	0,0109	58,86	m ³ /h	78,48	m ³ /h	98,10	m ³ /h	117,72	m ³ /h	156,96	m ³ /h	196,20	m ³ /h	235,44	m ³ /h
225x225	0,0244	131,76	m ³ /h	175,68	m ³ /h	219,60	m ³ /h	263,52	m ³ /h	351,36	m ³ /h	439,20	m ³ /h	527,04	m ³ /h
300x300	0,0435	234,90	m ³ /h	313,20	m ³ /h	391,50	m ³ /h	469,80	m ³ /h	626,40	m ³ /h	783,00	m ³ /h	939,60	m ³ /h
375x375	0,0679	366,66	m ³ /h	488,88	m ³ /h	611,10	m ³ /h	733,32	m ³ /h	977,76	m ³ /h	1222,20	m ³ /h	1466,64	m ³ /h
450x450	0,0978	528,12	m ³ /h	704,16	m ³ /h	880,20	m ³ /h	1056,24	m ³ /h	1408,32	m ³ /h	1760,40	m ³ /h	2112,48	m ³ /h
525x525	0,1331	718,74	m ³ /h	958,32	m ³ /h	1197,90	m ³ /h	1437,48	m ³ /h	1916,64	m ³ /h	2395,80	m ³ /h	2874,96	m ³ /h
600x600	0,1739	939,06	m ³ /h	1252,08	m ³ /h	1565,10	m ³ /h	1878,12	m ³ /h	2504,16	m ³ /h	3130,20	m ³ /h	3756,24	m ³ /h

Flow Rate m³/h

Table-2

V_t (m/s) Shooting Distance Correction Table

V_t (m/s)	0,25	0,375	0,5	0,625	0,75
L_t (m)	x 2	x 1,33	x 1	x 0,8	x 0,67

Table-3

Sound Level and Pressure Loss Correction Chart by Pressure Control Damper Open Position

Damper Position	100 % Open	50 % Open	25 % Open
Pt X 1.00	Pt X 1.00	Pt X 2.25	Pt X 5.90
LW + 0	LW + 0	LW +10	LW +20

Table-4

AIR DISTRIBUTION DIAGRAM

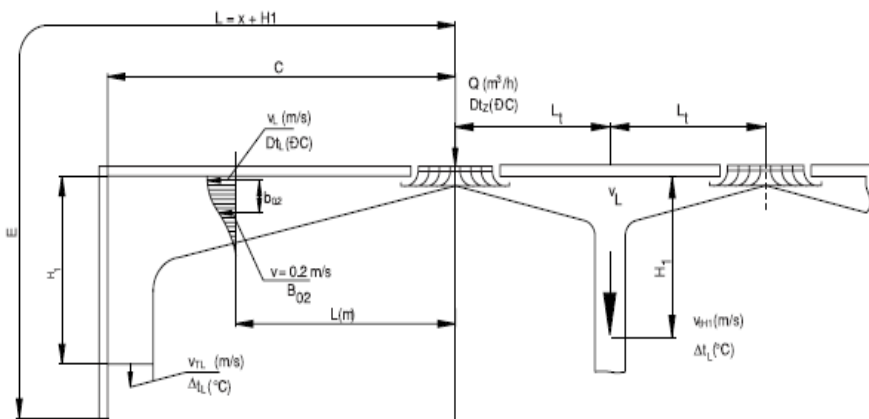


Diagram-3



-IMPERIAL SYSTEM-

RECOMMENDED MAXIMUM AIRFLOW

Ceiling Height, ft.	8	9	10	12	15	20
Airflow, cfm, per Side	200	350	550	900	1500	4000

Table-5

CORRECTIONS FOR MODEL TDCA (ADJUSTABLE PATTERN CONTROLLERS)

Nominal Neck Size	NC (add)		Total Pressure (Multiply)		Vertical Throw (Multiply)		
	H	V	H	V	Cooling 20 F	Heating, ΔT	
						0 F	20 F
6 x 6	3	7	1.3	1.6	1.3	1.1	0.8
9 x 9	3	7	1.5	2.3	1.4	1.2	0.72
12 x 12	3	7	1.5	2.3	1.5	1.25	0.65
15 x 15	3	7	1.5	2.3	1.55	1.27	0.62
18 x 18	3	7	1.5	2.3	1.6	1.3	0.59
21 x 21	3	7	1.5	2.3	1.65	1.35	0.57
24 x 24	3	7	1.5	2.3	1.1	1.1	0.55

Table-6

AIR DISTRIBUTION DIAGRAM

9" x 9" Model TDC / 4-Way Diffuser
 240 cfm Total
 20°F Cooling Differential

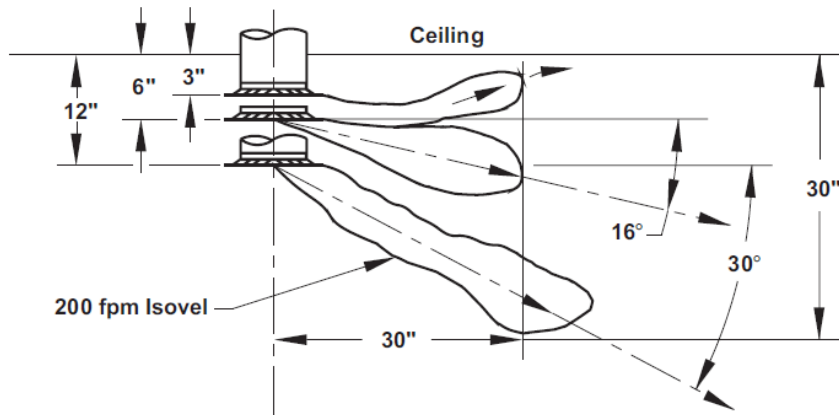


Diagram-4



SQUARE CEILING DIFFUSER - KTA

Performance Data

REGISTERS&GRILLES

IMPERIAL PERFORMANCE DATA

		Neck Vel.	300	400	500	600	700	800	900	
		Vol. Pressurs	0.006	0.010	0.016	0.022	0.031	0.040	0.050	
		Total Pressurs	0.042	0.075	0.117	0.169	0.229	0.300	0.379	
Return Factors -SP = 1.1 TP NC + 1		Total cfm	75	100	125	150	175	200	225	
		NC	-	13	16	23	27	31	34	
		Side	cfm	Throw	cfm	Throw	cfm	Throw	cfm	Throw
6 x 6 0.25 ft'	S1	X	75	8-10-14	100	9-11-18	125	10-13-18	150	11-14-20
	S2&G2	X & Y	38	4-8-10	50	5-8-12	63	8-10-14	76	8-10-15
	A3	X	28	4-8-9	36	5-7-11	47	8-8-12	58	7-9-13
	A4	X & Y	19	3-6-8	25	4-7-9	31	8-7-10	38	7-8-11
Return Factors -SP = 1.1 TP NC + 1		Total cfm	169	225	281	338	394	450	506	
		NC	-	15	21	26	30	34	37	
		Side	cfm	Throw	cfm	Throw	cfm	Throw	cfm	Throw
9 x 9 0.56 ft'	S1	X	169	11-15-21	225	14-17-24	281	16-19-27	338	17-21-30
	S2&G2	X & Y	84	8-9-18	113	8-11-18	141	10-14-20	169	11-16-22
	A3	X	63	8-10-14	84	8-11-18	106	10-13-18	127	11-14-20
	A4	X & Y	42	4-7-12	58	7-10-14	70	8-11-18	84	10-12-17
Return Factors -SP = 1.1 TP NC + 1		Total cfm	300	400	500	600	700	800	900	
		NC	-	17	23	28	32	35	38	
		Side	cfm	Throw	cfm	Throw	cfm	Throw	cfm	Throw
12 x 12 1.00 ft'	S1	X	300	15-20-26	400	18-23-32	500	21-25-38	600	23-28-39
	S2&G2	X & Y	150	8-11-21	200	10-15-24	250	13-19-27	300	15-21-30
	A3	X	113	11-13-18	150	12-15-21	188	14-17-24	225	16-18-28
	A4	X & Y	75	8-10-16	100	9-13-19	125	11-15-21	150	13-18-23
Return Factors -SP = 1.1 TP NC + 1		Total cfm	469	625	781	938	1094	1250	1406	
		NC	11	19	25	29	33	37	40	
		Side	cfm	Throw	cfm	Throw	cfm	Throw	cfm	Throw
15 x 15 1.56 ft'	S1	X	469	18-25-35	625	23-29-40	781	28-32-45	938	29-35-49
	S2&G2	X & Y	234	10-14-26	313	13-19-30	391	16-24-34	469	19-28-37
	A3	X	178	13-18-23	234	15-19-27	293	17-21-30	352	19-23-33
	A4	X & Y	117	7-12-20	158	11-16-23	195	14-18-28	234	16-20-28
Return Factors -SP = 1.1 TP NC + 1		Total cfm	675	900	1125	1350	1575	1800	2025	
		NC	12	20	26	31	35	38	41	
		Side	cfm	Throw	cfm	Throw	cfm	Throw	cfm	Throw
18 x 18 2.25 ft'	S1	X	675	23-30-42	900	28-34-48	1125	31-38-54	1350	34-42-58
	S2&G2	X & Y	338	11-17-31	450	15-23-38	563	18-29-41	675	23-31-44
	A3	X	253	16-20-26	338	18-23-32	422	21-25-38	508	23-28-39
	A4	X & Y	169	9-15-24	225	13-20-28	281	17-22-31	338	20-24-34
Return Factors -SP = 1.1 TP NC + 1		Total cfm	919	1225	1531	1838	2144	2450	2756	
		NC	13	21	27	32	36	39	42	
		Side	cfm	Throw	cfm	Throw	cfm	Throw	cfm	Throw
21 x 21 3.06 ft'	S1	X	919	27-35-48	1225	33-40-58	1531	38-45-63	1838	40-48-68
	S2&G2	X & Y	459	13-20-37	613	18-27-42	766	22-33-47	919	27-37-52
	A3	X	345	18-23-32	459	22-28-37	574	24-30-42	688	28-32-48
	A4	X & Y	230	10-17-28	308	14-23-32	383	18-28-38	459	23-28-40
Return Factors -SP = 1.1 TP NC + 1		Total cfm	1200	1600	2000	2400	2800	3200	3600	
		NC	14	22	28	32	36	40	43	
		Side	cfm	Throw	cfm	Throw	cfm	Throw	cfm	Throw
24 x 24 4.00 ft'	S1	X	1200	31-39-58	1600	37-48-84	2000	42-51-72	2400	46-58-78
	S2&G2	X & Y	600	15-23-42	800	20-30-48	1000	25-39-54	1200	30-42-58
	A3	X	450	21-28-37	600	25-30-43	750	28-34-48	900	30-37-52
	A4	X & Y	300	12-20-32	400	16-28-37	500	22-28-41	600	28-32-45

Table-7