

TABLE 1 — SELECTION DATA
(3/4-in. Adjustable Louvers on 3/4-in. Centres)

Area Factor		.05			.10			.15			.20			.25			.30			
Typical Sizes		4x4			6x4			10x4 6x6			12x4 8x6			10x6 12x5			12x6 10x8			
Spread Angle		0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	
CFM																				
50	Throw	Min	9	6	5	6	4	3	5	4	3									
	Ft.	Max.	14	10	7	10	7	5	8	6	4									
	Static Pressure		.03	.05	.08	-	.01	.02	-	-	-									
75	Throw	Min	13	9	7	9	7	5	8	5	4	7	5	4	6	4	3			
	Ft.	Max.	21	15	11	15	10	8	12	8	6	10	7	6	9	7	5			
	Static Pressure		.05	.11	.16	.02	.03	.04	-	.01	.02	-	-	.01	-	-	-			
100	Throw	Min	17	13	9	12	9	7	10	7	6	9	6	5	8	6	4	7	5	4
	Ft.	Max.	27	20	15	19	14	10	16	11	8	14	10	7	12	9	7	11	8	6
	Static Pressure		.09	.20	.29	.03	.05	.08	.01	.02	.03	-	.01	.02	-	-	.01	-	-	-
150	Throw	Min				19	13	10	15	11	8	13	9	7	12	8	6	11	8	6
	Ft.	Max.				28	20	15	24	17	13	21	15	11	18	13	10	17	12	9
	Static Pressure					.07	.11	.16	.03	.05	.08	.02	.03	.04	.01	.02	.03	-	.01	.02
200	Throw	Min				25	18	13	20	15	11	18	13	9	16	11	8	14	10	8
	Ft.	Max.				39	28	21	32	23	17	27	20	15	25	18	13	22	16	12
	Static Pressure					.09	.20	.29	.05	.03	.13	.03	.05	.08	.02	.03	.05	.01	.02	.04
250	Throw	Min							25	18	14	22	16	12	20	14	11	18	13	10
	Ft.	Max.							39	28	21	34	25	18	31	22	17	28	20	15
	Static Pressure								.06	.13	.20	.04	.08	.11	.03	.05	.08	.02	.04	.05
300	Throw	Min										26	19	14	24	17	13	21	15	12
	Ft.	Max.										41	30	22	37	26	20	34	24	18
	Static Pressure											.07	.11	.16	.04	.07	.10	.03	.05	.08
350	Throw	Min										31	22	17	27	20	13	25	18	14
	Ft.	Max.										48	35	26	43	31	23	39	28	21
	Static Pressure											.07	.15	.22	.05	.10	.14	.04	.07	.10
400	Throw	Min																28	20	16
	Ft.	Max.																45	32	24
	Static Pressure																	.04	.09	.13
450	Throw	Min																32	23	17
	Ft.	Max.																50	36	17
	Static Pressure																	.07	.11	.16
500	Throw	Min																		
	Ft.	Max.																		
	Static Pressure																			
600	Throw	Min																		
	Ft.	Max.																		
	Static Pressure																			
700	Throw	Min																		
	Ft.	Max.																		
	Static Pressure																			
800	Throw	Min																		
	Ft.	Max.																		
	Static Pressure																			
900	Throw	Min																		
	Ft.	Max.																		
	Static Pressure																			
1000	Throw	Min																NC	below 20	
	Ft.	Max.																NC	20 to 25	
	Static Pressure																			
1200	Throw	Min																NC	25 to 30	
	Ft.	Max.																NC	30 to 35	
	Static Pressure																			
1400	Throw	Min																NC	35 to 40	
	Ft.	Max.																NC	40 to 45	
	Static Pressure																			

Minimum Throw at Vt=125 fpm

Maximum Throw at Vt=80 fpm

TABLE 1 — SELECTION DATA

(3/4-in. Adjustable Louvers on 3/4-in. Centres)

Area Factor		1.20			1.50			2.0			2.5			3.0			4.0			
Typical Sizes		36x8	26x10		40x8	20x16		36x12	30x14		52x10	28x18		36x18	28x22		52x16	36x22		
Spread Angle		0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	
CFM																				
400	Throw	Min	14	10	8															
	Ft.	Max.	22	16	12															
	Static Pressure			-	-	-									NC	below 20				
450	Throw	Min	16	12	9	14	10	8												
	Ft.	Max.	25	18	14	22	16	12												
	Static Pressure			-	-	.01	-	-	-						NC	20 to 25				
500	Throw	Min	18	13	10	17	12	9												
	Ft.	Max.	28	20	15	25	18	13												
	Static Pressure			-	-	.01	-	-	-						NC	25 to 30				
600	Throw	Min	21	15	12	19	14	10	16	12	9									
	Ft.	Max.	34	24	18	30	22	16	26	18	14									
	Static Pressure			-	.01	.02	-	-	.01	-	-	-			NC	30 to 35				
700	Throw	Min	25	18	14	22	16	12	19	14	10									
	Ft.	Max.	39	28	21	35	25	19	30	21	16									
	Static Pressure			-	.02	.03	-	.01	.02	-	-	.01			NC	35 to 40				
800	Throw	Min	29	21	15	26	18	14	22	16	12	20	14	11						
	Ft.	Max.	45	32	24	40	29	22	34	24	18	31	22	17						
	Static Pressure			.01	.02	.04	-	.02	.02	-	-	.01	-	-	-					
900	Throw	Min	32	23	17	29	20	16	25	18	13	22	16	12	20	15	11			
	Ft.	Max.	50	36	27	45	32	24	38	28	21	35	25	19	32	23	17			
	Static Pressure			.02	.03	.04	.01	.02	.03	-	.01	.02	-	-	.01	-	-	-		
1000	Throw	Min	36	26	19	32	23	17	27	20	15	25	18	13	23	17	13			
	Ft.	Max.	56	40	30	50	36	27	43	31	23	39	28	21	35	25	19			
	Static Pressure			.02	.04	.05	.01	.02	.04	-	.01	.02	-	-	.01	-	-	-		
1200	Throw	Min	43	31	23	38	28	21	33	24	18	30	21	16	27	20	15	24	17	13
	Ft.	Max.	67	48	36	60	43	32	51	37	28	46	33	25	42	30	23	37	27	20
	Static Pressure			.03	.05	.08	.02	.03	.05	.01	.02	.03	-	.01	.02	-	-	.01	-	-
1400	Throw	Min	50	36	27	45	32	24	38	27	21	35	25	19	32	23	17	27	20	15
	Ft.	Max.	78	56	42	70	50	38	60	43	32	54	39	29	50	36	27	43	31	23
	Static Pressure			0.4	.07	.10	.02	.04	.06	.02	.03	.04	.01	.02	.03	-	.01	.02	-	-
1600	Throw	Min	57	41	31	51	37	28	44	31	24	40	29	21	36	26	20	31	23	17
	Ft.	Max.	90	65	48	80	58	43	68	49	37	62	45	33	57	41	31	49	35	26
	Static Pressure			.05	.09	.13	.03	.06	.09	.02	.03	.05	.01	.02	.03	-	.02	.02	-	-
1800	Throw	Min	64	46	35	57	41	31	49	35	26	45	32	24	41	29	22	36	26	19
	Ft.	Max.	101	73	55	90	65	48	77	55	42	70	50	38	64	46	34	55	40	30
	Static Pressure			.05	.11	.16	.04	.07	.10	.03	.04	.06	.02	.03	.04	.01	.02	.03	-	.01
2000	Throw	Min				64	46	35	55	39	29	50	36	27	45	33	24	39	28	21
	Ft.	Max.				100	72	54	85	61	46	77	56	42	71	51	38	61	44	33
	Static Pressure					.05	.09	.11	.03	.05	.08	.02	.03	.05	.01	.02	.04	-	.01	
2500	Throw	Min							68	49	37	62	45	33	57	41	31	49	35	27
	Ft.	Max.							106	76	57	97	70	52	88	63	48	77	55	41
	Static Pressure									.04	.08	.12	.03	.05	.08	.02	.04	.05	.01	.02
3000	Throw	Min							32	59	44	74	54	40	68	49	37	59	42	32
	Ft.	Max.							128	92	69	116	84	63	106	76	57	92	66	50
	Static Pressure									.06	.11	.16	.04	.07	.10	.03	.05	.08	.02	.03
3500	Throw	Min										67	62	47	79	57	43	69	49	37
	Ft.	Max.										135	97	73	124	89	67	107	77	58
	Static Pressure												.05	.10	.14	.04	.07	.10	.02	.04
4000	Throw	Min												91	65	49	78	56	42	
	Ft.	Max.												142	102	77	123	88	46	
	Static Pressure														.05	.09	.13	.03	.05	
4500	Throw	Min													102	73	55	88	64	48
	Ft.	Max.													159	114	86	138	99	75
	Static Pressure														.06	.11	.16	.03	.06	
5000	Throw	Min																98	71	53
	Ft.	Max.																153	110	83
	Static Pressure																		.04	.08
6000	Throw	Min																117	84	63
	Ft.	Max.																184	133	99
	Static Pressure																		.06	.11
7000	Throw	Min																		
	Ft.	Max.																		
	Static Pressure																			
8000	Throw	Min																		
	Ft.	Max.																		
	Static Pressure																			
9000	Throw	Min																		
	Ft.	Max.																		
	Static Pressure																			
10000	Throw	Min																		
	Ft.	Max.																		
	Static Pressure																			

Minimum Throw at Vt=125 fpm

Maximum Throw at Vt=80 fpm

TABLE 1 — SELECTION DATA

(3/4-in. Adjustable Louvers on 3/4-in. Centres)

5.0			6.0			8.0			10.0			12.0			14.0			15.0			
56x18		40x26	60x20		52x24	60x28		44x36	56x36			60x40		52x44	56x48			60x48			
0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	0°	22½°	45°	CFM
NC	below 20																				400
NC	20 to 25																				450
NC	25 to 30																				500
NC	30 to 35																				600
NC	35 to 40																				700
																					800
																					900
																					1000
																					1200
																					1400
28	20	15																			
44	32	24																			1600
-	-	-																			
32	23	17	29	21	16																
50	36	27	45	32	24																1800
-	-	.01	-	-	-																
35	25	19	32	23	17																
55	40	30	50	36	27																2000
-	-	.01	-	-	-																
44	32	24	40	29	22	35	25	19													
69	49	37	63	45	34	54	39	29													2500
-	.01	.02	-	-	.01	-	-	-													
53	38	29	48	35	26	42	30	23	37	27	20										
83	59	45	75	54	41	65	47	35	58	42	31										3000
.01	.02	.03	-	.01	.02	-	-	.01	-	-	-										
62	45	33	56	40	30	49	35	26	43	31	23										
96	69	52	88	63	47	76	55	41	68	49	37										3500
.02	.03	.04	.01	.02	.03	-	-	.02	-	-	.01										
70	51	38	64	46	35	56	40	30	50	36	27	45	33	25							
110	79	59	100	72	54	87	63	47	78	56	42	71	51	38							4000
.02	.03	.05	.01	.02	.04	-	.01	.02	-	-	.01	-	-	-							
79	57	43	72	52	39	63	45	34	56	40	30	51	37	28	47	34	25	46	33	25	
124	89	67	113	81	61	98	71	53	87	63	47	80	57	43	71	53	40	71	51	38	4500
.02	.04	.07	.02	.03	.04	-	.02	.03	-	-	.02	-	-	.01	-	-	-	-	-	-	
88	63	48	80	58	43	70	50	38	62	45	33	57	41	31	52	38	28	51	37	27	
138	99	75	125	90	68	109	79	59	97	70	52	88	64	48	82	59	44	79	57	43	5000
.03	.05	.08	.02	.04	.05	.01	.02	.03	-	.01	.02	-	-	.01	-	-	.01	-	-	-	
106	76	57	96	69	52	83	60	45	74	54	40	68	49	37	63	45	34	61	44	33	
165	119	89	150	108	81	130	94	70	116	84	63	106	76	57	98	71	53	95	68	51	6000
.03	.07	.10	.03	.05	.08	.02	.03	.04	.01	.02	.03	-	.02	.02	-	-	.02	-	-	.01	
123	89	66	113	81	61	97	70	53	87	63	47	80	57	43	73	53	40	71	51	38	
193	139	105	175	126	95	157	109	82	136	98	74	124	89	67	114	82	62	111	80	60	7000
.05	.10	.14	.05	.07	.10	.02	.04	.06	.02	.03	.04	.01	.02	.03	-	.02	.02	-	-	.01	
			28	92	69	111	80	60	99	72	54	91	65	49	84	60	45	81	58	44	
			199	144	108	174	125	94	155	112	84	142	102	77	131	94	71	127	91	69	8000
			.05	.09	.13	.03	.05	.08	.02	.03	.05	.02	.03	.04	.01	.02	.03				.02
			144	104	78	125	90	68	112	81	61	102	73	55	94	68	51	91	66	49	
			226	162	122	196	141	106	175	126	95	159	115	86	147	106	80	143	103	77	9000
			.06	.11	.16	.03	.06	.10	.03	.04	.06	.02	.03	.04	.01	.02	.03	.01	.02	.03	
			161	116	87	139	100	75	124	89	67	113	81	61	105	76	57	101	73	55	
			250	180	135	217	156	117	194	140	105	177	127	96	164	118	89	159	114	86	10000
			.07	.14	.20	.04	.08	.10	.03	.05	.07	.02	.04	.05	.02	.02	.04	.01	.02	.03	

Minimum Throw at Vt=125 fpm

Maximum Throw at Vt=80 fpm

**TABLE 2 — AREA FACTORS, A_v , FOR SELECTION OF
SUPPLY REGISTERS AND GRILLES — ¾ -IN. LOUVRES**

Grille Width in.	Grille Height, in.																		
	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	36	40	44	48
4	.06																		
5	.08	.10																	
6	.09	.12	.15																
8	.13	.17	.21	.29															
10	.17	.21	.26	.36	.46														
12	.20	.26	.32	.44	.56	.68													
14	.24	.31	.38	.52	.66	.81	.95												
16	.27	.35	.44	.60	.76	.93	1.10	1.25											
18	.31	.40	.49	.68	.86	1.05	1.23	1.42	1.60										
20	.34	.45	.55	.76	.96	1.17	1.37	1.60	1.80	2.00									
22	.38	.49	.61	.83	1.06	1.29	1.50	1.75	1.95	2.20	2.40								
24	.41	.54	.66	.91	1.16	1.41	1.65	1.90	2.15	2.40	2.65	2.90							
26	.45	.58	.72	.99	1.26	1.55	1.80	2.10	2.35	2.60	2.90	3.15	3.45						
28	.50	.63	.78	1.07	1.36	1.65	1.95	2.25	2.55	2.80	3.10	3.40	3.70	4.00					
30	.55	.68	.83	1.15	1.46	1.75	2.10	2.40	2.70	3.05	3.35	3.65	3.95	4.30	4.60				
36	.65	.85	1.00	1.38	1.75	2.15	2.50	2.90	3.25	3.65	4.00	4.40	4.80	5.20	5.50	6.70			
40	.75	.95	1.15	1.55	1.95	2.40	2.80	3.20	3.65	4.10	4.50	4.90	5.30	5.70	6.20	7.40	8.30		
44	.80	1.05	1.25	1.70	2.10	2.60	3.10	3.55	4.05	4.50	5.00	5.40	5.90	6.30	6.80	8.20	9.10	9.70	
48	.90	1.15	1.35	1.85	2.35	2.85	3.40	3.90	4.40	4.90	5.40	5.90	6.40	6.90	7.40	8.90	9.90	11.00	12.00
52	1.00	1.20	1.50	2.05	2.55	3.05	3.60	4.15	4.70	5.30	5.80	6.40	6.90	7.40	7.90	9.70	10.80	12.00	13.00
56	1.05	1.30	1.60	2.20	2.75	3.30	3.80	4.40	5.00	5.60	6.20	6.80	7.40	7.90	8.50	10.50	11.60	12.80	14.00
60	1.10	1.40	1.70	2.35	2.95	3.55	4.00	4.70	5.40	6.00	6.60	7.30	7.90	8.40	9.10	11.20	12.50	13.70	15.00

TABLE 3 — NC AND STATIC PRESSURE FACTORS FOR REGISTERS (Open Damper)

Grille Width	4	5	6-7	8-9	10-11	12-13	14-17	18-21	22-23	24-27	28-33	34-41	42-48
NC Addition (1)	12	11	10	9	8	7	6	5	5	4	4	4	3
Ps Multiplier (2)	2.5	2.4	2.2	2.0	1.9	1.8	1.7	1.6	1.5	1.5	1.4	1.3	1.2

Notes : (1) NC Addition plus Grille NC equals Register NC level.

(2) P_s Multiplier times Grille Static Pressure equals Register Static Pressure.

TABLE 4 — DROP OF COOLED SUPPLY AIR

(Feet Below Bottom of Grille)

Area Factor	.15		.25		.50		1.00		2.00		3.00		4.00	
Spread Angle	0°	45°	0°	45°	0°	45°	0°	45°	0°	45°	0°	45°	0°	45°
CFM														
75	4.0	2.0	4.5	2.5	5.0	2.5								
100	4.5	2.0	5.0	2.5	5.5	2.5	6.0	3.0						
150	5.0	2.5	5.5	2.5	6.0	3.0	6.5	3.0						
200	5.5	2.5 6.0	3.0	6.5	3.5	7.5	3.5	8.0	4.0					
300	6.5	3.0	7.5	3.5	8.5	4.0	9.0	4.5	10.0	5.0				
500	8.5	4.0	9.5	4.5	10.5	5.0	11.0	5.5	12.0	5.5				
700	9.5	4.5	10.5	5.0	11.5	5.5	12.5	6.0	13.0	6.5				
1000	12.0	5.5	13.0	6.5	14.0	6.5	14.5	7.0						
1500	13.0	6.5	15.0	7.0	15.5	7.5	16.5	8.0						
2000	16.0	8.0	17.0	8.5	18.0	8.5								
2500	17.0	8.5	18.0	9.0	19.0	9.5								
3000	18.5	9.0	19.5	9.5	20.5	10.0								

Notes : (1) For 22½° spread angle, drop is approximately 90 percent of drop at 0°.

(2) For 15° to 20° upward deflection use drop values for 45° spread.

(3) Values tabulated for 20 deg supply-to-room air temperature difference.

Increase drop by 20 percent for 25 deg supply-to-room air temperature difference.

TABLE 5 — NC ADDITION FOR COMBINING EFFECTS OF SOUND SOURCES

Difference Between Two Levels To Be Combined	0	1	2	4	6	9	10
Number To Be Added To Higher Level To Obtain Combined Level	3	2½	2	1½	1	½	0

TABLE 6 — MODEL NUMBERS

Model	Description
DHV	Double deflection (Front horizontal / Rear vertical louvres)
DVH	Double deflection (Front vertical / Rear horizontal louvres)
SH	Single deflection (Horizontal louvres)
SV	Single Deflection (Vertical louvres)