Series AL2500

Table 1 - Supply Air

CFM per Foot	Listed Width in Inches	Min. P_s in H_20		Face Velocity (V_k) FPM		Throw (T) in Feet		Minimum Ceiling Height in Feet		NC
		Bar Style		Bar Style		Sidewall	Sill/Floor			
		00 and 15	30 and 01	00 and 15	30 and 01	Min.-Max.	Min.-Max.	@ -18F △T	@ -25F △T	
20	1½	.01	.01	500	575	6-9	1-2	8	9	<20
30	1½	.03	.04	750	865	7-10	2-3	9	10	25
	2	.01	.01	475	545	6-9	1-2			20
40	1½	.05	.07	1000	1150	9-13	3-5	9	11	30
	2	.02	.03	635	730	8-11	2-4			25
	2½	.01	.01	460	530	7-10	2-3			20
50	1½	.03	.12	1250	1440	11-16	4-9	9½	11	30
	2	.03	.04	790	910	10-14	3-7			25
	2½	.02	.03	575	660	9-13	2-6			20
	3	<.01	.01	440	505	8-12	2-5			<20
60	2	.05	.07	950	1090	12-18	5-11	9½	12	30
	2½	.02	.03	690	795	11-16	4-9			25
	3	.01	.01	530	610	10-14	3-7			20
	4	<.01	.01	370	425	8-12	2-5			<20
70	2	.06	.08	1110	1275	14-20	7-13	10	12	30
	2½	.03	.04	810	935	13-19	6-12			30
	3	.02	.03	660	760	11-16	4-9			25
	4	<.01	.01	435	500	10-14	3-7			<20
80	2	.08	.10	1275	1450	16-23	9-16	10½	12½	30
	2½	.04	.05	920	1060	15-21	8-14			30
	3	.03	.04	700	805	13-18	6-11			25
	4	.01	.01	495	570	11-16	4-9			20
90	2½	.05	.07	1030	1185	17-24	10-17	11	13	30
	3	.04	.05	785	905	15-21	8-14			30
	4	.01	.02	550	635	13-18	6-11			25
	5	<.01	.01	450	520	11-16	4-9			20
100	2½	.06	.08	1150	1325	19-27	12-20	11	13	30
	3	.04	.05	875	1010	16-23	9-16			30
	4	.02	.03	620	715	14-20	7-13			25
	5	.01	.01	500	575	12-18	5-11			20
120	3	.06	.08	1050	1210	19-28	11-20	11½	13	30
	4	.03	.04	745	855	17-24	9-16			30
	5	.02	.03	600	680	15-22	7-14			25
	6	<.01	.01	480	550	13-19	5-11			20
140	3	.08	.11	1220	1410	22-32	14-24	11½	14	35
	4	.04	.05	870	1000	19-28	11-20			30
	5	.02	.03	700	810	17-25	9-17			25
	6	.01	.01	560	645	15-22	7-14			20
160	4	.05	.07	990	1140	22-32	13-23	12	15	35
	5	.03	.04	800	925	19-29	10-20			30
	6	.02	.03	640	735	18-26	9-17			25
	8	.01	.01	460	530	15-22	6-13			20
180	4	.07	.09	1110	1275	25-36	16-27	12	15	35
	5	.04	.05	900	1035	22-33	13-24			30
	6	.03	.04	725	835	20-30	11-21			25
	8	.02	.03	520	600	17-25	8-16			20
200	4	.08	.11	1240	1425	28-41	-	12	15	40
	5	.05	.07	1000	1150	24-36	-			35
	6	.04	.05	800	925	23-33	-			30
	8	.02	.03	575	665	20-28	-			25
250	5	.08	.11	1250	1440	30-46	-	13	15	40
	6	.05	.07	1000	1150	27-39	-			35
	8	.03	.04	720	830	25-35	-			30
	10	.01	.01	550	625	21-32	-			25
300	6	.07	.09	1200	1375	33-48	-	13	15	40
	8	.04	.05	865	1000	29-42	-			35
	10	.02	.03	665	765	25-39	-			30
	12	.01	.01	545	630	23-33	-			25
350	8	.05	.08	1020	1175	34-48	-	13	15	40
	10	.03	.04	780	900	29-45	-			35
	12	.02	.03	640	735	26-38	-			30
400	8	.08	.11	1170	1350	40-55	-	14	16	45
	10	.04	.05	890	1025	33-50	-			40
	12	.03	.04	730	845	33-44	-			35

Symbols:

- V_t Terminal Velocity in FPM
- V_r Room Velocity in FPM
- V_k Face Velocity in FPM
- A_k Outlet Area in Square Feet
- A_n Neck Area in Square Feet
- P_s Static Pressure in H_2O
- NC 18dB Room Attenuation
- T Throw in Feet; see Note 6.
- △T Temperature Differential

Notes:

1. Table 1 based on 4-foot grille length. For longer lengths, correct throw and NC per **Table 2**.
2. When using continuous grille lengths with alternate active and inactive sections, a reduction in throw can be obtained by omitting the factors contained in **Table 2**.
3. Bar style 30 and 0
   Increase **Table 1** NC + 5 NC
4. Supply air temperature effect on horizontal throw is shown in **Table 3**. Vertical down-throw at varying supply temperatures is shown in **Table 4**.
5. When spreading the air path with a horizontal deflection of 22º per side in grille lengths up to 4 feet:
   Multiply **Table 1** Throw x .75
   Increase **Table 1** NC + 5 NC
   Multiply **Table 1** P_S x 1.20
   Multiply **Table 5** A_k x .90
6. Terminal velocities (V_t) at the minimum and maximum throw (T) values are rated at 125 FPM and 75 FPM, respectively, with corresponding room velocities (V_r) of 50 FPM and 35 FPM.

Recommended Noise Criteria and Face Velocity Ranges are on page 98.

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Table 2 - Continuous Grille Length Factors

Modify **Table 1** by listed values for grille lengths above 4 feet.			
Grille Length in Feet	**Throw (T)**		
	Sidewall Min.-Max.	**Sill/Floor Min.-Max.**	**NC**
4-6	No Change		+0
7-20	T x 1.10		+5
21-100	T x 1.15		+10

Table 3 - Supply Air Temperature Factors

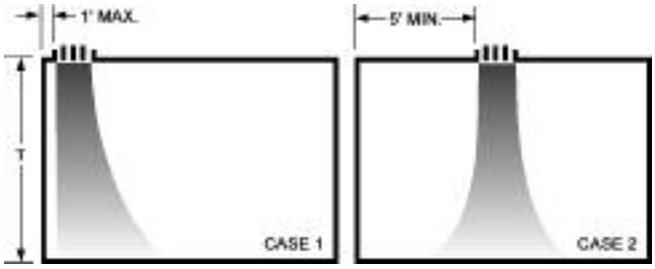
Multiply Throw in **Table 1** (or factor in **Table 2** if used) by listed value.			
Sidewall Sill/Floor	**@-20F ΔT**	**@ 0F Δ**	**@+25F Δ**
	T x 1.00	T x 1.10	T x 1.20

Table 4 - Vertical Down-Throw and Supply Air Temperature Factors

Multiply Throw-Sidewall in **Table 1** (or factor in **Table 2** if used) by listed value.			
Case	**@-20F ΔT Cooling**	**@ 0F ΔT Ventilating**	**@+25F Δ Heating**
Case 1	T x 1.00	T x .90	T x .60
Case 2	T x .70	T x .60	T x .40

Table 5 - Supply Grille Areas (per foot of length)

	Listed Width in Inches																
	1½	**2**	**2½**	**3**	**4**	**5**	**6**	**8**	**10**	**12**	**14**	**16**	**18**	**20**	**24**	**30**	**36**
A_n	.13	.17	.21	.25	.33	.42	.50	.67	.84	1.00	1.20	1.30	1.50	1.70	2.00	2.50	3.00
00 and 15 Bar Styles																	
A_k	.04	.06	.09	.11	.16	.20	.25	.35	.45	.55	.68	.79	.90	1.00	1.30	1.60	2.10
30 and 01 Bar Styles																	
A_k	.03	.05	.08	.09	.14	.17	.21	.30	.38	.47	.58	.67	.77	.85	1.10	1.40	1.80



Recommended Noise Criteria and Face Velocity Ranges are on page 98.