

ENGINEERING DATA

T1100, A1100 Plaque Diffuser



12x12 Module (T1100 only)

Neck Velocity (FPM)	300	400	500	600	700	800	900	1000	1200	1400
Velocity Pressure	0.006	0.01	0.016	0.022	0.031	0.04	0.051	0.062	0.09	0.122

6" Ak = 0.09	Airflow (CFM)	60	80	100	120	140	160	180	200	240	280
	Total Pressure	0.013	0.050	0.076	0.110	0.150	0.195	0.246	0.305	0.439	0.595
	Horizontal Throw	1-2-3	2-3-6	3-4-8	3-5-9	4-5-11	4-6-12	5-7-14	5-8-15	6-9-17	7-11-18
	Noise Criteria	<15	<15	<15	<15	17	21	24	28	33	38

8" Ak = 0.13	Airflow (CFM)	105	140	175	210	245	280	315	350	420	490
	Total Pressure	0.026	0.070	0.109	0.156	0.213	0.278	0.352	0.434	0.262	0.825
	Horizontal Throw	2-3-6	3-5-9	4-6-11	5-7-14	5-8-16	6-9-18	7-10-19	8-11-20	9-14-22	11-16-24
	Noise Criteria	<15	<15	<15	<15	17	21	24	28	33	38

24x24 Module

6" Ak = 0.19	Airflow (CFM)	60	80	100	120	140	160	180	200	240	280
	Total Pressure	0.009	0.011	0.017	0.025	0.034	0.044	0.057	0.070	0.100	0.135
	Horizontal Throw	1-1-2	1-1-4	1-2-4	1-3-5	2-3-6	2-4-7	3-4-8	3-4-9	4-5-11	4-6-11
	Noise Criteria	<15	<15	<15	<15	<15	<15	17	21	28	34

8" Ak = 0.26	Airflow (CFM)	105	140	175	210	245	280	315	350	420	490
	Total Pressure	0.011	0.018	0.028	0.040	0.055	0.072	0.091	0.112	0.162	0.220
	Horizontal Throw	1-2-4	2-3-6	2-4-7	3-4-9	3-5-10	4-6-12	4-6-12	5-7-13	6-9-14	7-10-15
	Noise Criteria	<15	<15	<15	<15	<15	17	21	25	32	38

10" Ak = 0.34	Airflow (CFM)	165	220	275	330	385	440	495	550	660	770
	Total Pressure	0.017	0.029	0.043	0.060	0.082	0.108	0.136	0.168	0.243	0.331
	Horizontal Throw	2-3-7	3-4-8	3-5-10	4-6-12	5-7-13	5-8-14	6-9-15	7-10-16	8-12-18	10-13-19
	Noise Criteria	<15	<15	<15	<15	15	20	24	28	35	41

12" Ak = 0.40	Airflow (CFM)	240	310	390	470	550	630	710	790	940	1100
	Total Pressure	0.023	0.037	0.059	0.085	0.115	0.151	0.191	0.237	0.338	0.461
	Horizontal Throw	2-4-7	4-5-11	5-7-14	5-8-15	6-9-16	7-11-17	8-12-18	9-14-19	11-15-21	13-16-23
	Noise Criteria	<15	<15	<15	<15	18	23	27	31	38	43

14" Ak = 0.47	Airflow (CFM)	320	430	530	640	750	860	960	1070	1280	1500
	Total Pressure	0.031	0.050	0.078	0.114	0.155	0.202	0.256	0.316	0.453	0.619
	Horizontal Throw	3-4-8	4-7-13	6-8-16	7-10-17	8-12-19	9-13-20	10-15-21	11-16-23	13-17-25	15-19-27
	Noise Criteria	<15	<15	<15	<15	20	25	29	33	40	45

15" Ak = 0.51	Airflow (CFM)	370	490	610	740	860	980	1100	1230	1470	1720
	Total Pressure	0.033	0.058	0.089	0.130	0.177	0.231	0.292	0.360	0.519	0.706
	Horizontal Throw	4-5-12	5-7-15	6-9-17	7-11-19	9-13-20	10-15-22	11-16-23	12-17-24	15-19-26	17-20-29
	Noise Criteria	<15	<15	<15	15	21	26	30	34	41	46

Notes:

1. Tests conducted in accordance with ANSI/ASHRAE 70-1991 at isothermal conditions.
2. Tests conducted with a straight rigid inlet condition. Other inlet conditions may alter performance.
3. Units: Total Pressure = in. wc; Velocity Pressure = in. wc; Effective Area (Ak) = ft.².
4. Throw = feet at 150 fpm, 100 fpm and 50 fpm terminal velocities.
5. NC is based upon 10dB room absorption (Re: 10⁻¹² watts) evaluated at 125 thru 4000 Hz octave bands.
6. Flow hoods are recommended for system balancing.