

PERFORMANCE DATA:

SUPPLY • CONTINUOUS PRESSURIZED PLENUM

Model 5010 • 1" (25) Slot

B LINEAR DIFFUSERS AND BAR GRILLES

No. of Slots	Total Pressure, Horizontal	.004	.016	.036	.065	.098	.138	.192	.245
	Total Pressure, Vertical	.002	.009	.024	.038	.057	.082	.113	.148
1	Airflow, CFM/FT.	10	15	25	30	40	50	55	65
	Throw, Horizontal	1-4-10	3-6-13	8-13-18	10-16-21	13-16-23	16-18-26	18-18-26	18-21-29
	Throw, Vertical	2	8	12	13	15	16	17	18
	Noise Criteria	–	–	18	22	29	34	37	41
2	Airflow, CFM/FT.	20	30	50	60	80	100	110	130
	Throw, Horizontal	3-7-18	5-10-21	13-18-26	16-21-31	18-23-39	21-26-42	23-34-44	26-39-47
	Throw, Vertical	4	10	16	19	20	21	23	25
	Noise Criteria	–	–	21	25	32	37	40	44
3	Airflow, CFM/FT.	30	45	75	90	120	150	165	195
	Throw, Horizontal	5-9-21	8-14-26	16-21-31	18-26-42	23-29-47	26-31-49	29-34-55	31-36-57
	Throw, Vertical	6	11	18	22	25	27	30	31
	Noise Criteria	–	–	23	27	34	39	42	46
4	Airflow, CFM/FT.	40	60	100	120	160	200	220	260
	Throw, Horizontal	8-10-26	12-19-31	18-26-42	21-29-47	26-39-55	29-42-57	31-44-62	34-47-68
	Throw, Vertical	7	13	21	26	29	30	34	36
	Noise Criteria	–	–	24	28	35	40	43	47
5	Airflow, CFM/FT.	50	75	125	150	200	250	275	325
	Throw, Horizontal	10-12-29	16-21-36	20-29-47	23-34-52	31-44-60	39-47-68	42-49-73	44-52-78
	Throw, Vertical	8	15	22	27	30	36	37	40
	Noise Criteria	–	–	25	29	36	41	44	48
6	Airflow, CFM/FT.	60	90	150	180	240	300	330	390
	Throw, Horizontal	11-14-31	18-23-39	21-31-42	26-42-57	39-47-68	42-52-70	44-57-75	47-60-81
	Throw, Vertical	8	17	26	30	34	36	41	44
	Noise Criteria	–	15	26	30	37	42	45	49
7	Airflow, CFM/FT.	70	105	175	210	280	350	385	455
	Throw, Horizontal	12-16-39	20-26-44	26-39-55	29-44-60	42-52-73	47-55-78	49-60-83	52-62-88
	Throw, Vertical	9	18	28	32	37	41	43	48
	Noise Criteria	–	15	26	30	37	42	45	49
8	Airflow, CFM/FT.	80	120	200	240	320	400	440	520
	Throw, Horizontal	13-18-42	21-29-47	26-42-57	34-47-68	47-55-78	49-57-81	55-62-86	57-68-94
	Throw, Vertical	11	20	30	35	40	45	50	51
	Noise Criteria	–	16	27	31	38	43	46	50

Noise Criteria Correction Factors for Various Lengths

Length (ft.)	2	4	6	8	9	10	15
Supply	-3	0	+2	+3	+4	+5	+8
Return	0	+3	+4	+6	+7	+8	+10

Throw Correction Factors for Various Lengths

Length (ft.)	2	4	6	8	10	12
Multiplier	0.70	1.0	1.25	1.40	1.55	1.70

Performance Notes:

- Data is based upon pressurized plenum application (non ducted) with no plenum effect for pressure or sound. Plenums should be sized to achieve equal velocity along the slot length. Keep duct inlet velocities below 700 fpm in order to maintain cataloged performance.
- All pressures are in inches w.g..
- Horizontal throws are given at 150, 100 and 50 fpm terminal velocities. Vertical throws are given at 50 fpm terminal velocity. Both under isothermal conditions.
- Throw data are based on active sections 4 ft. long. For other lengths, use the correction factor table above.

- Noise criteria [NC] values are based on 10 dB room absorption, re 10⁻¹² watts, for a 4 ft. section. For other lengths, use the correction factor table above. For vertical throw, deduct 10 NC.
- Throw values are for a 1-way air pattern. For divided airflow, deduce the airflow in each direction according to the number of slots, with the total airflow apportioned between the slots. Look up throw for the airflow in each direction according to the number of slots in that direction.
- Dash (–) in space indicates an Noise Criteria level of less than 15.

- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70-2006.

Number of Slots	Ak Factor per foot	
	Supply	Return
1	.030	.044
2	.060	.088
3	.090	.132
4	.121	.176
5	.151	.220
6	.181	.264
7	.211	.308
8	.241	.352