



METALLUM ENTERPRISES

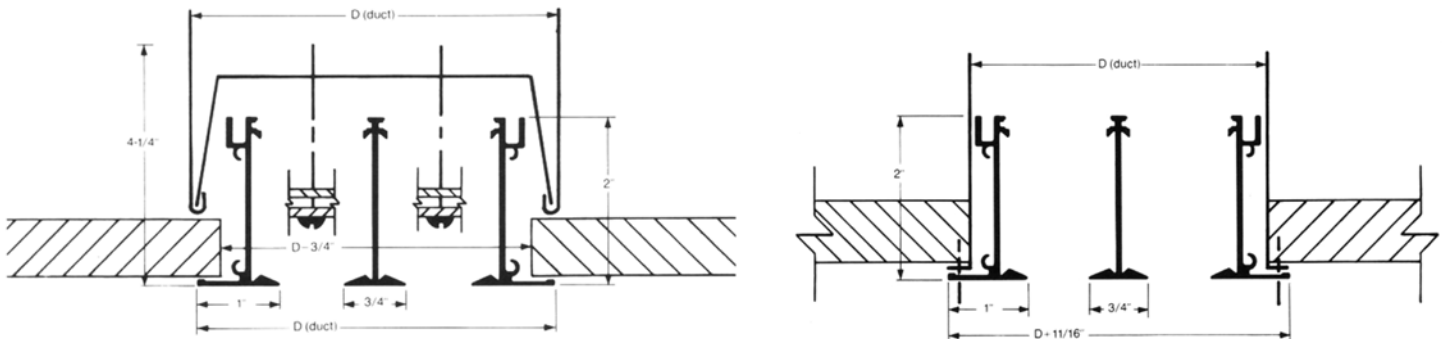
MANUFACTURERS OF AIR CONDITIONING GRILLES

7500 NW 68th Street

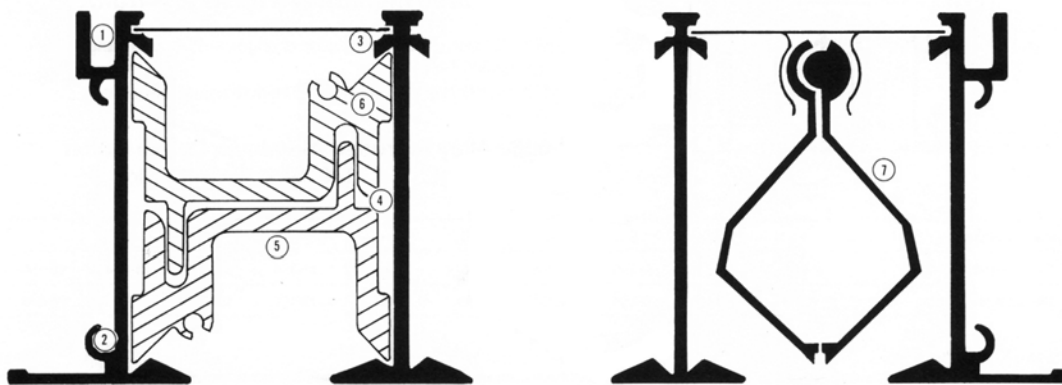
Miami, FL 33166

Dec-09

AIR SLOT DIFFUSER CONCEALED OR SCREW MOUNTED



Number of Slots	1	2	3	4	5	6	7	8	9	10
"D" Dimension 1/2"-3/4"	2-1/16"	3-9/16"	5-1/16"	6-9/16"	8-1/16"	9-9/16"	11-1/16"	12-9/16"	14-1/16"	15-9/16"
"D" Dimension 1"	2-5/16"	4-1/16"	5-13/16"	7-9/16"	9-5/16"	11-1/16"	12-13/16"	14-9/16"	16-5/16"	18-1/16"



- ① Duct or plenum retainer channel.
- ② Channel for T-Bar alignment clip, wire hanger bracket and alignment strip.
- ③ Channel for blank off strip.
- ④ Additional alignment channel for multi-slot units.
- ⑤ Access hole for mounting bracket screw or eye bolt.
- ⑥ Structure support member.
- ⑦ Combination pattern control device and damper.



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Miami, FL 33166

Dec-09

AIR SLOT DIFFUSER CONCEALED OR SCREW MOUNTED SUPPLY PERFORMANCE DATA 1/2" SLOTS

Number of Slots	Static Pressure (PS) Outlet Velocity (Vk)	0.02	0.04	0.06	0.10	0.14	0.19
		500	750	1000	1250	1500	1750
1 Ak/ft. = 0.02	CFM/ft in direction of Throw	10	15	20	25	30	35
	Throw Horizontal	3-5	4-8	4-11	5-15	5-18	6-22
	ft. Vertical	4	5	6	8	10	15
	NC	-	-	-	23	29	34
2 Ak/ft. = 0.04	CFM/ft in direction of Throw	20	30	40	50	60	70
	Throw Horizontal	3-7	3-11	4-12	5-17	7-21	8-25
	ft. Vertical	4	6	8	9	11	14
	NC	-	-	22	28	34	38
3 Ak/ft. = 0.06	CFM/ft in direction of Throw	30	45	60	75	90	105
	Throw Horizontal	4-9	4-13	5-14	7-21	8-25	9-29
	ft. Vertical	4	7	10	12	13	15
	NC	-	-	24	31	37	41
4 Ak/ft. = 0.08	CFM/ft in direction of Throw	40	60	80	100	120	140
	Throw Horizontal	4-10	4-14	6-15	8-24	10-28	12-33
	ft. Vertical	7	9	11	13	15	17
	NC	-	-	27	34	39	43
5 Ak/ft. = 0.10	CFM/ft in direction of Throw	50	75	100	125	150	175
	Throw Horizontal	4-11	5-16	7-21	9-27	11-32	13-37
	ft. Vertical	7	9	12	15	18	20
	NC	-	-	28	35	40	45
6 Ak/ft. = 0.12	CFM/ft in direction of Throw	60	90	120	150	180	210
	Throw Horizontal	4-11	5-18	7-24	9-29	11-35	13-41
	ft. Vertical	7	10	13	15	19	21
	NC	-	20	29	36	41	46
7 Ak/ft. = 0.14	CFM/ft in direction of Throw	70	105	140	175	210	245
	Throw Horizontal	5-13	6-19	8-26	9-31	11-37	13-43
	ft. Vertical	8	11	14	17	21	22
	NC	-	21	30	37	42	47
8 Ak/ft. = 0.16	CFM/ft in direction of Throw	80	120	160	200	240	280
	Throw Horizontal	5-14	8-21	9-23	12-35	14-42	15-49
	ft. Vertical	9	12	16	18	23	25
	NC	-	22	31	38	43	48
9 Ak/ft. = 0.18	CFM/ft in direction of Throw	90	135	180	225	270	315
	Throw Horizontal	6-18	9-23	10-28	13-40	15-48	16-52
	ft. Vertical	9	13	17	19	24	26
	NC	-	23	32	39	44	49
10 Ak/ft. = 0.20	CFM/ft in direction of Throw	100	150	200	250	300	350
	Throw Horizontal	7-21	10-28	11-32	14-43	16-52	17-54
	ft. Vertical	10	14	18	19	25	28
	NC	-	24	33	40	45	50

Horizontal: Horizontal throw values are based on a continuous 10 foot active linear diffuser length.

Vertical: Vertical projection values are based on a 4 foot active linear diffuser length.

NC: Sound pressure level noise criteria values are based on a 4 foot active linear diffuser length and a room absorption of 10 dB for sound power (Lw).

"-" indicates sound ratings less than NC 20.

Throw: Horizontal throw in feet (one-way) and vertical projection in feet.

Ps: Minimum static pressure in inches.

Ak: Outlet area in sq. ft.

Vk: Outlet velocity in feet per minute.

CFM/ft: The volume of air per linear foot of difusser, in cubic feet per minute.



METALLUM ENTERPRISES

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7500 NW 68th Street

Miami, FL 33166

Dec-09

AIR SLOT DIFFUSER CONCEALED OR SCREW MOUNTED RETURN PERFORMANCE DATA 1/2" SLOTS

Number of Slots	Negative Ps	0.02	0.04	0.06	0.08	0.10	0.15
1	CFM/ft	15	20	25	30	35	40
Ak/ft = 0.03	NC	-	20	27	32	37	41
2	CFM/ft	35	50	60	70	80	95
Ak/ft = 0.06	NC	-	22	27	32	37	41
3	CFM/ft	55	80	95	110	125	150
Ak/ft = 0.09	NC	-	23	28	33	37	42
4	CFM/ft	70	100	120	140	155	190
Ak/ft = 0.12	NC	-	24	30	34	37	44
5	CFM/ft	90	135	155	180	200	245
Ak/ft = 0.15	NC	-	25	30	34	37	44
6	CFM/ft	110	155	195	220	245	300
Ak/ft = 0.18	NC	-	26	33	37	40	96
7	CFM/ft	130	185	225	260	290	355
Ak/ft = 0.21	NC	-	27	33	37	41	47
8	CFM/ft	140	200	245	280	310	385
Ak/ft = 0.24	NC	-	28	34	38	42	48
9	CFM/ft	160	215	265	300	330	405
Ak/ft = 0.27	NC	-	29	35	39	43	49
10	CFM/ft	180	230	285	320	350	435
Ak/ft = 0.30	NC	-	30	36	40	44	50

NC: Sound pressure level noise criteria values are based on a 4 foot active linear diffuser length and a room absorption of 10 dB for sound power (Lw).

"-" indicates sound ratings less than NC 20.

Ps: Minimum static pressure in inches.

Ak: Outlet area in sq. ft.

CFM/ft: The volume of air per linear foot of difusser, in cubic feet per minute.



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Dec-09

AIR SLOT DIFFUSER CONCEALED OR SCREW MOUNTED SUPPLY PERFORMANCE DATA 3/4" SLOTS

Number of Slots	Static Pressure (PS)		0.01	0.02	0.04	0.05	0.07	0.10	0.12	0.15
	Outlet Velocity (V _k)		335	500	665	835	1000	1165	1335	1500
1 Ak/ft. = 0.03	CFM/ft in direction of Throw		10	15	20	25	30	35	40	45
	Throw ft.	Horizontal	2-4	3-6	3-8	4-10	4-13	5-15	6-17	6-19
		Vertical	3	4	5	6	7	8	9	10
		NC	-	-	-	24	29	33	36	
2 Ak/ft. = 0.06	CFM/ft in direction of Throw		20	30	40	50	60	70	80	90
	Throw ft.	Horizontal	2-5	3-8	4-10	5-13	5-16	6-19	8-24	9-28
		Vertical	4	5	6	8	9	10	11	13
		NC	-	-	23	29	34	38	41	
3 Ak/ft. = 0.09	CFM/ft in direction of Throw		30	45	60	75	90	105	120	135
	Throw ft.	Horizontal	3-6	4-10	5-12	6-15	6-19	7-22	8-25	9-28
		Vertical	5	6	7	9	11	12	13	15
		NC	-	-	26	32	37	41	44	
4 Ak/ft. = 0.12	CFM/ft in direction of Throw		40	60	80	100	120	140	160	180
	Throw ft.	Horizontal	3-7	4-11	5-13	7-17	7-21	8-25	9-28	11-32
		Vertical	5	7	8	11	12	13	15	17
		NC	-	-	22	28	34	39	46	
5 Ak/ft. = 0.15	CFM/ft in direction of Throw		50	75	100	125	150	175	200	225
	Throw ft.	Horizontal	3-8	5-12	6-15	8-20	8-24	9-29	11-32	12-36
		Vertical	6	8	9	12	14	15	17	20
		NC	-	23	29	35	40	44	48	
6 Ak/ft. = 0.18	CFM/ft in direction of Throw		60	90	120	150	180	210	240	270
	Throw ft.	Horizontal	3-8	5-13	7-17	8-22	8-27	10-32	12-35	13-40
		Vertical	7	8	10	13	15	17	18	22
		NC	-	-	24	30	36	41	49	
7 Ak/ft. = 0.21	CFM/ft in direction of Throw		70	105	140	175	210	245	280	315
	Throw ft.	Horizontal	4-9	6-15	7-18	9-24	9-29	11-35	13-38	15-44
		Vertical	7	9	11	15	16	18	20	24
		NC	-	25	32	37	42	46	50	
8 Ak/ft. = 0.24	CFM/ft in direction of Throw		80	120	160	200	240	280	320	360
	Throw ft.	Horizontal	4-10	6-16	8-20	10-26	10-32	12-38	14-42	16-48
		Vertical	8	10	12	16	18	20	22	26
		NC	-	-	26	33	38	43	51	
9 Ak/ft. = 0.27	CFM/ft in direction of Throw		90	135	180	225	270	315	355	395
	Throw ft.	Horizontal	4-11	7-17	8-27	10-32	11-35	13-40	15-44	17-50
		Vertical	9	11	13	18	20	22	24	28
		NC	-	27	34	39	44	48	52	
10 Ak/ft. = 0.30	CFM/ft in direction of Throw		100	150	200	250	300	350	390	430
	Throw ft.	Horizontal	5-12	7-20	9-30	11-38	12-38	14-42	16-48	17-52
		Vertical	10	12	14	19	21	24	26	30
		NC	-	-	28	35	40	45	53	

Horizontal: Horizontal throw values are based on a continuous 10 foot active linear diffuser length.

Vertical: Vertical projection values are based on a 4 foot active linear diffuser length.

NC: Sound pressure level noise criteria values are based on a 4 foot active linear diffuser length and a room absorption of 10 dB for sound power (Lw).

"-" indicates sound ratings less than NC 20.

Throw: Horizontal throw in feet (one-way) and vertical projection in feet.

Ps: Minimum static pressure in inches.

Ak: Outlet area in sq. ft.

Vk: Outlet velocity in feet per minute.

CFM/ft: The volume of air per linear foot of diffuser, in cubic feet per minute.



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Miami, FL 33166

Dec-09

AIR SLOT DIFFUSER CONCEALED OR SCREW MOUNTED RETURN PERFORMANCE DATA 3/4" SLOTS

Number of Slots	Negative Ps	0.02	0.04	0.06	0.08	0.10	0.15
1	CFM/ft	25	35	45	50	55	70
Ak/ft = 0.04	NC	-	21	29	32	35	42
2	CFM/ft	55	80	90	100	110	135
Ak/ft = 0.08	NC	-	25	29	32	35	42
3	CFM/ft	90	115	140	160	180	220
Ak/ft = 0.12	NC	-	26	32	36	40	46
4	CFM/ft	100	140	175	200	225	275
Ak/ft = 0.16	NC	-	27	34	38	41	47
5	CFM/ft	140	185	225	260	290	360
Ak/ft = 0.20	NC	-	27	34	38	42	48
6	CFM/ft	160	225	275	320	360	440
Ak/ft = 0.24	NC	-	29	35	40	43	49
7	CFM/ft	175	250	305	350	395	480
Ak/ft = 0.28	NC	-	30	36	40	44	50
8	CFM/ft	200	285	350	400	450	545
Ak/ft = 0.32	NC	-	31	37	41	45	51
9	CFM/ft	225	315	395	450	505	645
Ak/ft = 0.36	NC	-	32	38	42	47	52
10	CFM/ft	250	340	440	505	560	725
Ak/ft = 0.40	NC	-	33	39	43	48	53

NC: Sound pressure level noise criteria values are based on a 4 foot active linear diffuser length and a room absorption of 10 dB for sound power (Lw).

"-" indicates sound ratings less than NC 20.

Ps: Minimum static pressure in inches.

Ak: Outlet area in sq. ft.

CFM/ft: The volume of air per linear foot of difusser, in cubic feet per minute.



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MANUFACTURERS OF AIR CONDITIONING GRILLES

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Dec-09

AIR SLOT DIFFUSER CONCEALED OR SCREW MOUNTED SUPPLY PERFORMANCE DATA 1" SLOTS

Number of Slots	Static Pressure (PS)		0.03	0.04	0.06	0.08	0.10	0.15	0.20	0.27
	Outlet Velocity (V _k)		500	625	750	875	1000	1250	1500	1750
1 Ak/ft. = 0.04	CFM/ft in direction of Throw		20	25	30	35	40	50	60	70
	Throw ft.	Horizontal	2-4	3-7	3-9	4-11	4-14	6-17	7-19	7-21
		Vertical	3	4	6	7	8	9	10	11
		NC	-	-	20	25	29	36	41	46
2 Ak/ft. = 0.08	CFM/ft in direction of Throw		40	50	60	70	80	100	120	140
	Throw ft.	Horizontal	2-6	3-9	4-11	6-14	6-18	7-21	8-23	9-27
		Vertical	4	6	7	9	10	11	12	14
		NC	-	20	25	30	34	41	45	51
3 Ak/ft. = 0.12	CFM/ft in direction of Throw		60	75	90	105	120	150	180	210
	Throw ft.	Horizontal	3-7	4-11	6-13	7-17	7-21	8-24	9-28	10-31
		Vertical	6	7	8	10	12	13	14	17
		NC	-	22	28	33	37	44	50	54
4 Ak/ft. = 0.16	CFM/ft in direction of Throw		80	100	120	140	160	200	240	280
	Throw ft.	Horizontal	3-8	4-12	6-14	8-19	8-23	9-28	10-31	12-36
		Vertical	6	8	9	12	13	14	17	19
		NC	-	24	30	35	39	45	51	56
5 Ak/ft. = 0.24	CFM/ft in direction of Throw		100	125	150	175	200	250	300	350
	Throw ft.	Horizontal	3-9	6-13	7-17	9-22	9-27	10-32	12-36	13-40
		Vertical	7	9	10	13	16	17	19	22
		NC	-	26	31	35	39	45	51	56
6 Ak/ft. = 0.28	CFM/ft in direction of Throw		120	150	180	210	240	300	360	420
	Throw ft.	Horizontal	3-9	6-14	8-19	9-24	9-30	11-36	13-39	14-44
		Vertical	8	9	11	14	17	19	20	24
		NC	-	27	32	37	41	48	53	58
7 Ak/ft. = 0.32	CFM/ft in direction of Throw		140	175	210	245	280	350	420	490
	Throw ft.	Horizontal	4-10	7-17	8-20	10-27	10-32	12-39	13-42	17-49
		Vertical	8	10	12	17	18	20	22	26
		NC	-	28	33	38	42	49	54	59
8 Ak/ft. = 0.36	CFM/ft in direction of Throw		160	200	240	280	320	400	480	560
	Throw ft.	Horizontal	4-11	7-18	9-22	11-29	13-36	16-42	16-47	18-53
		Vertical	9	11	13	18	20	22	24	29
		NC	22	29	34	39	43	50	56	60
9 Ak/ft. = 0.40	CFM/ft in direction of Throw		180	225	270	315	360	450	540	630
	Throw ft.	Horizontal	6-14	8-20	10-25	12-33	14-40	17-50	18-52	19-57
		Vertical	10	12	14	19	21	23	25	30
		NC	24	30	35	40	44	51	57	61
10 Ak/ft. = 0.44	CFM/ft in direction of Throw		200	250	310	350	400	500	600	700
	Throw ft.	Horizontal	7-18	9-24	11-27	13-37	15-44	18-54	19-55	20-62
		Vertical	11	13	15	20	22	24	26	31
		NC	26	31	36	42	45	52	58	62

Horizontal: Horizontal throw values are based on a continuous 10 foot active linear diffuser length.

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Throw: Horizontal throw in feet (one-way) and vertical projection in feet.

Ps: Minimum static pressure in inches.

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CFM/ft: The volume of air per linear foot of diffuser, in cubic feet per minute.



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7500 NW 68th Street

Miami, FL 33166

Dec-09

AIR SLOT DIFFUSER **CONCEALED OR SCREW MOUNTED** **RETURN PERFORMANCE DATA 1" SLOTS**

Number of Slots	Negative Ps	0.02	0.04	0.06	0.08	0.10	0.15
1	CFM/ft	35	50	60	70	80	95
Ak/ft = 0.06	NC	-	25	31	36	40	45
2	CFM/ft	70	100	125	140	155	190
Ak/ft = 0.11	NC	-	27	33	37	41	47
3	CFM/ft	105	150	185	210	235	285
Ak/ft = 0.17	NC	-	29	35	39	43	49
4	CFM/ft	140	200	250	280	310	380
Ak/ft = 0.23	NC	-	31	37	41	45	51
5	CFM/ft	175	250	300	350	390	475
Ak/ft = 0.28	NC	-	32	38	42	46	52
6	CFM/ft	210	300	375	420	465	570
Ak/ft = 0.33	NC	-	33	40	43	47	53
7	CFM/ft	245	350	425	490	545	665
Ak/ft = 0.39	NC	-	34	41	44	47	54
8	CFM/ft	280	400	475	560	620	760
Ak/ft = 0.44	NC	-	35	42	45	48	55
9	CFM/ft	315	450	525	630	695	855
Ak/ft = 0.49	NC	-	36	43	46	49	57
10	CFM/ft	350	500	580	700	770	950
Ak/ft = 0.55	NC	-	37	44	48	50	58

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Ak: Outlet area in sq. ft.

CFM/ft: The volume of air per linear foot of difusser, in cubic feet per minute.