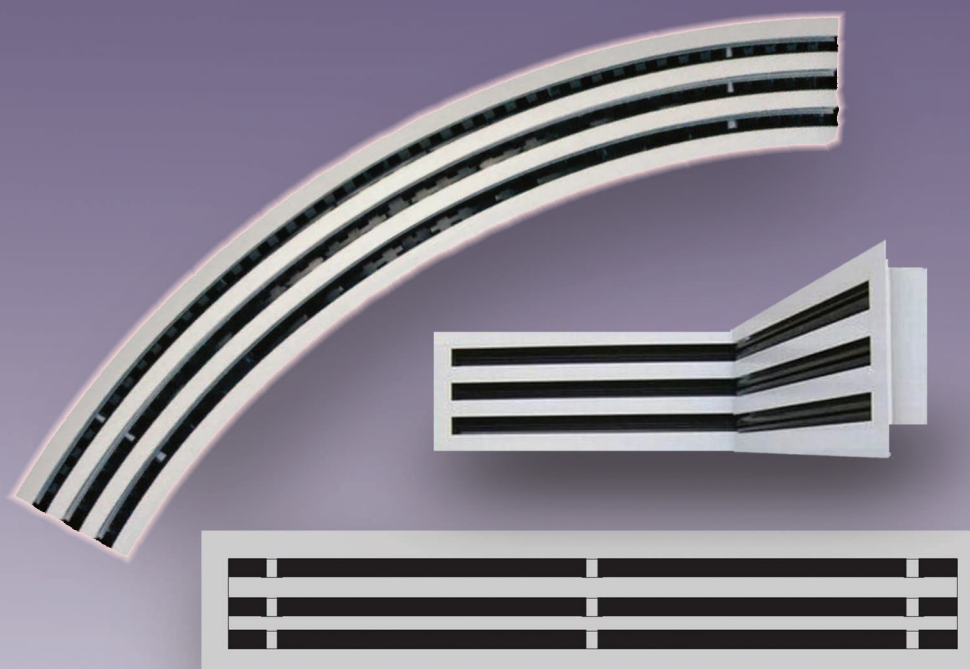


LINEAR SLOT DIFFUSER

LINEAR SLOT DIFFUSER



Linear Slot Diffuser

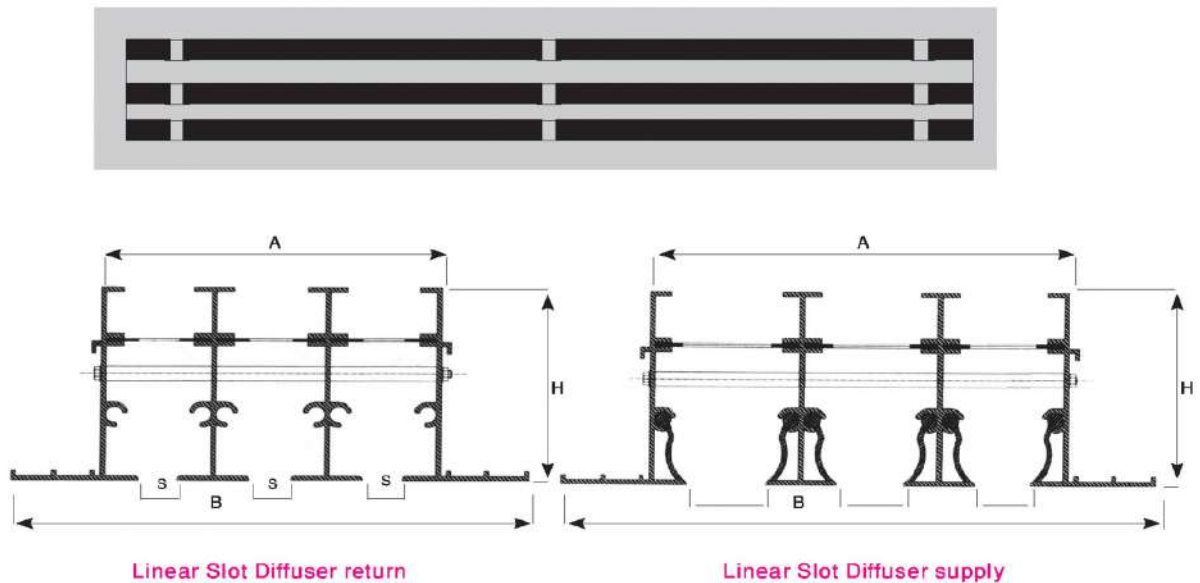
Corner Linear Slot Diffuser

Curved Linear Slot Diffuser



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LINEAR SLOT DIFFUSER



SAMA linear Slot Diffuser is high Capacity Slot Diffuser Suited to a wide range of applications. It can be used as supply air diffuser, return air diffuser or dummy ceiling diffuser for decorative purposes.

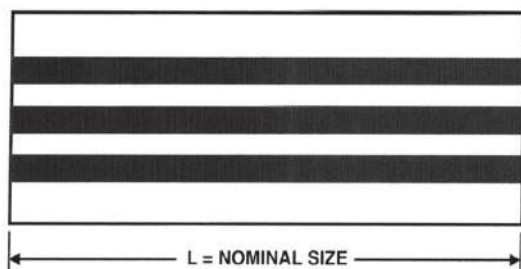
Product description:

- Fram and Curved deflection blades are made of extruded aluminum Alloy 6063 to T6 heat treatment.
- Available with Hit and miss damper of GI Sheet to control air flow rate without affecting the air flow Patterns.
- The Slots are available 3/4" or 1" width.

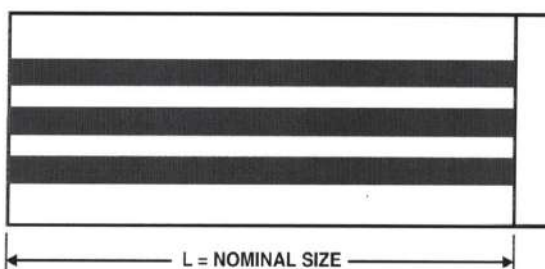
LINEAR SLOT DIFFUSER

● END CAP ARRANGEMENTS

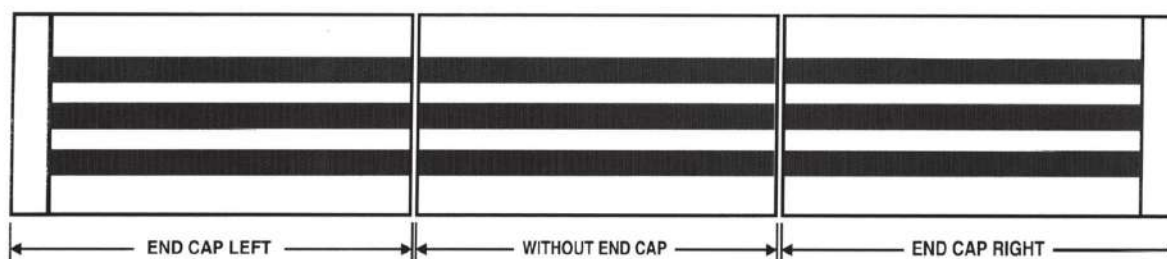
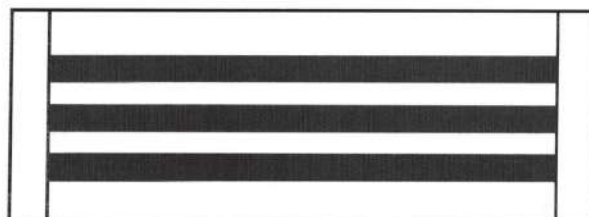
SLOT DIFFUSER WITHOUT END CAP



SLOT DIFFUSER WITH ONE END CAP : RIGHT OR LEFT

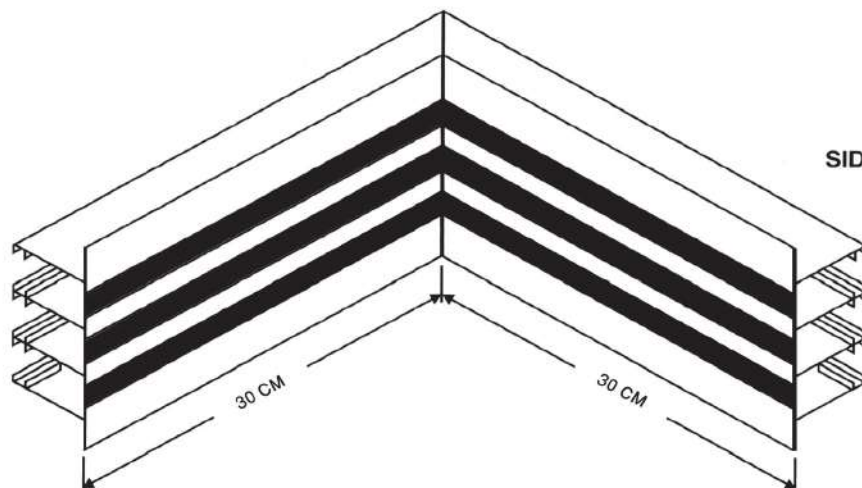


END CAP BOTH ENDS

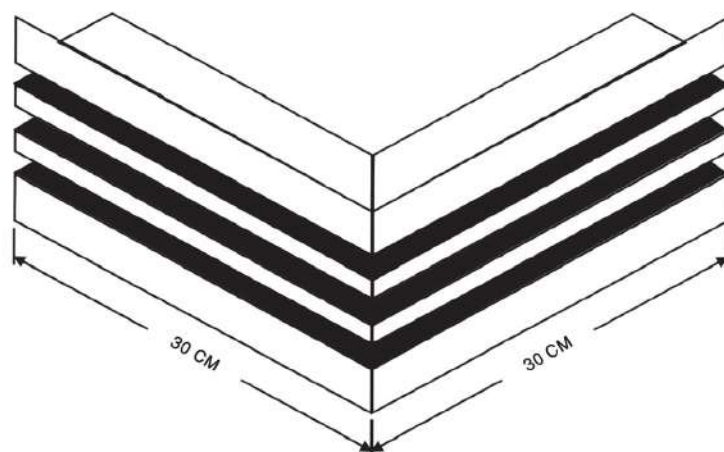


LINEAR SLOT DIFFUSER

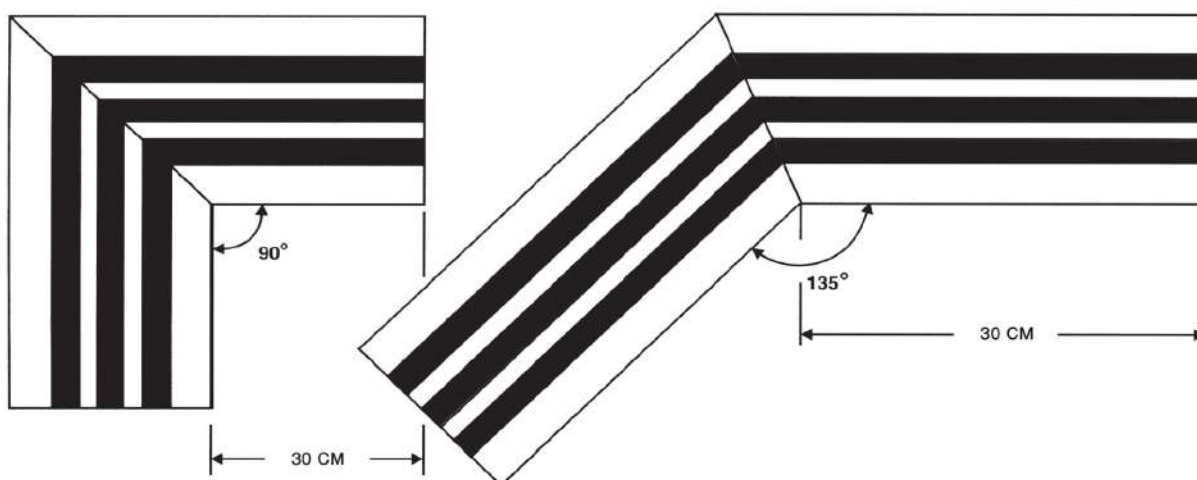
CORNER LINEAR SLOT DIFFUSER



SIDE WALL - INSIDE CORNER



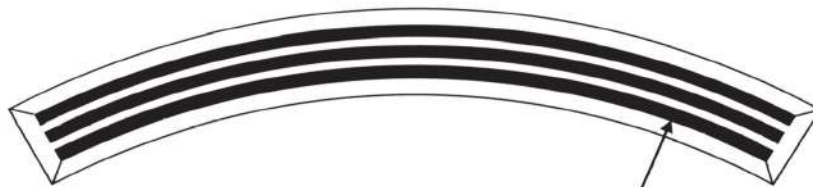
SIDE WALL - OUTSIDE CORNER



CEILING CORNER PIECES (Available in one through eight slots)

LINEAR SLOT DIFFUSER

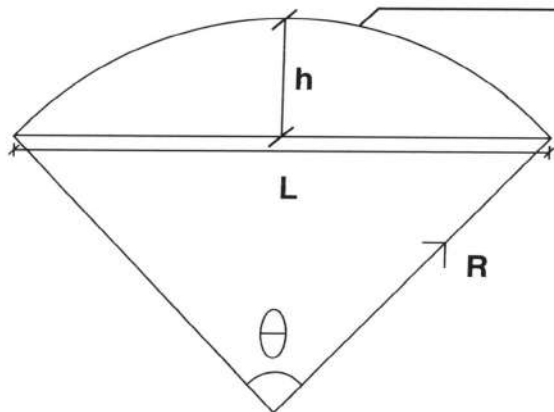
CURVE LINEAR SLOT DIFFUSER:



R - Radius up to grille inside.

R

GRILLE'S SEGMENT



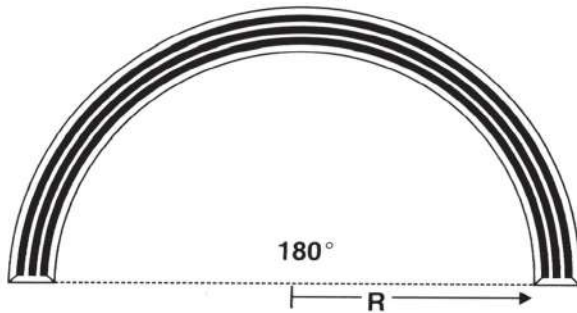
Grille Arch Length. (A/L).

$$A/L = \Theta \times (\pi/180) \times R$$

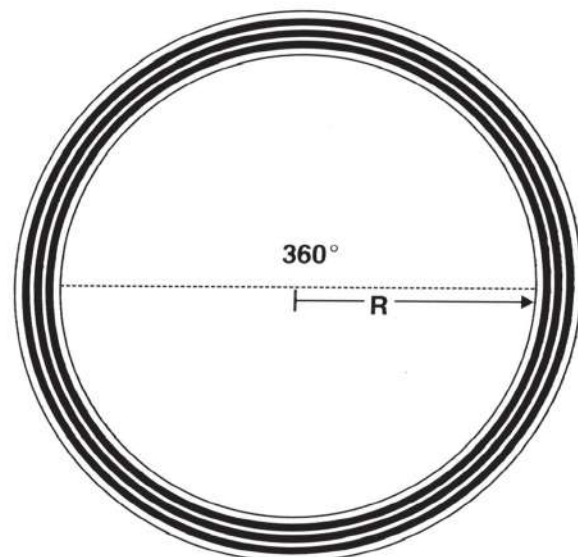
Θ - Angle, R - Radius

$$h = \text{Segment Height.} \\ = R \times (1 - \cos(\Theta/2)).$$

$$L = \text{Segment Length.} \\ = 2 \times R \times (\sin(\Theta/2)).$$



Semi-Circular Grille ; Arch Length = $\pi \times R$.



Full-Circular Grille ; Arch Length = $2 \times \pi \times R$.

LINEAR SLOT DIFFUSER

Listed Size:

SLOTS	3 / 4" or 20 mm				1" or 25 mm			
	Neck Size		Face Size		Neck Size		Face Size	
	inches	mm	inches	mm	inches	mm	inches	mm
1	1-13/16	46	3-1/8	79	2	50	3-1/4	83
2	3-1/4	83	4-5/8	117	3-9/16	91	4-15/16	125
3	4-3/4	120	6-1/16	154	5-3/16	132	6-9/16	166
4	6-1/4	158	7-1/2	191	6-7/8	174	8-1/8	207
5	7-11/16	195	9	228	8-7/16	215	9-3/4	248
6	9-1/8	232	10-7/16	265	10-1/16	256	11-3/8	289
7	10-9/16	269	11-7/8	302	11-11/16	297	13	330
8	12-1/16	306	13-3/8	339	13-5/16	338	14-5/8	371

Area Factor Summary

Slot Width	Number of Slots	Horizontal	Vertical	Return
3/4"	1	0.073	0.121	0.123
	2	0.135	0.180	0.184
	3	0.201	0.237	0.242
	4	0.265	0.295	0.301
	5	0.330	0.355	0.362
	6	0.395	0.413	0.421
	7	0.455	0.470	0.479
	8	0.520	0.530	0.539
1"	1	0.088	0.184	0.188
	2	0.162	0.274	0.281
	3	0.241	0.360	0.367
	4	0.318	0.448	0.457
	5	0.396	0.540	0.551
	6	0.474	0.628	0.641
	7	0.546	0.714	0.732
	8	0.631	0.806	0.822

LINEAR SLOT DIFFUSER

Performance Data:

Supply Linear Diffuser 3 /4" Slot Width

No. of Slots	CFM/FT.	10	20	30	40	50	60	70	80	90	100	125	150	200	250	300	350	400
1	HOR. SP	.022	.089	.200	.356	.557	.802	1.092	1.426	1.804	2.228							
	THROW	7-10	13-15	15-19	18-21	20-24	22-26	23-28	25-30	27-32	28-33							
	NC	<20	<20	30	39	41	47	>50	>50	>50	>50							
	VERT. SP	.010	.039	.088	.157	.245	.353	.480	.627	.794	.980							
	THROW	2-5	9-15	16-23	22-27	25-30	27-32	29-35	31-37	33-39	35-42							
	NC	<20	<20	<20	20	27	33	38	42	46	49							
2	HOR. SP		.022	.050	.089	.139	.200	.273	.356	.451	.557	.870						
	THROW		9-13	14-19	18-21	20-24	22-26	23-28	25-30	27-32	28-33	31-37						
	NC		<20	<20	<20	28	33	38	42	46	>50	>50						
	VERT. SP		.010	.022	.039	.061	.088	.120	.157	.199	.245	.383						
	THROW		3-6	7-13	12-21	19-26	23-31	27-35	30-37	33-39	35-42	39-46						
	NC		<20	<20	<20	<20	<20	<20	23	27	30	37						
3	HOR. SP			.022	.040	.062	.089	.121	.158	.200	.248	.387	.557					
	THROW			11-16	15-21	19-24	23-26	23-28	25-30	27-32	28-33	31-37	34-41					
	NC			<20	<20	<20	22	27	31	35	38	46	50					
	VERT. SP			.010	.017	.027	.039	.053	.070	.088	.109	.170	.245					
	THROW			4-8	7-13	10-20	15-26	20-30	25-34	28-38	31-42	39-46	43-51					
	NC			<20	<20	<20	<20	<20	<20	<20	<20	26	32					
4	HOR. SP				.022	.035	.050	.068	.089	.113	.139	.218	.313	.557				
	THROW				13-18	16-23	20-27	23-28	26-30	27-32	28-33	31-37	34-41	40-47				
	NC				<20	<20	<20	<20	24	27	31	38	43	>50				
	VERT. SP				.010	.015	.022	.030	.039	.050	.061	.096	.138	.245				
	THROW				4-9	7-13	10-18	13-25	17-30	22-33	27-36	34-46	40-51	50-58				
	NC				<20	<20	<20	<20	<20	<20	<20	24	33					
5	HOR. SP					.022	.032	.044	.057	.072	.089	.139	.200	.356	.557			
	THROW					15-20	18-24	20-28	23-30	26-32	29-33	31-37	34-41	40-46	44-52			
	NC					<20	<20	<20	<20	21	24	32	37	46	>50			
	VERT. SP					.010	.014	.019	.025	.032	.039	.061	.088	.157	.245			
	THROW					5-10	7-13	9-18	12-23	16-29	19-33	30-41	36-49	48-58	56-65			
	NC					<20	<20	<20	<20	<20	<20	<20	<20	27	34			
6	HOR. SP						.022	.030	.040	.050	.062	.097	.139	.248	.387	.557		
	THROW						16-22	19-26	21-29	24-33	27-35	31-37	34-41	40-47	44-52	48-57		
	NC						<20	<20	<20	<20	<20	27	32	41	49	>50		
	VERT. SP						.010	.013	.017	.022	.027	.043	.061	.109	.170	.245		
	THROW						5-10	7-14	9-18	12-22	15-27	23-38	33-45	44-58	55-65	61-71		
	NC						<20	<20	<20	<20	<20	<20	<20	22	29	35		
7	HOR. SP							.022	.029	.037	.045	.071	.102	.182	.284	.409	.557	
	THROW							17-24	20-27	22-31	25-34	31-37	34-41	40-47	44-52	48-56	52-61	
	NC							<20	<20	<20	<20	22	28	37	44	50	>50	
	VERT. SP							.010	.013	.016	.020	.031	.045	.080	.125	.180	.245	
	THROW							6-11	7-14	9-18	12-22	18-33	26-42	41-55	51-65	61-70	66-77	
	NC							<20	<20	<20	<20	<20	<20	<20	25	31	37	
8	HOR. SP								.022	.028	.035	.054	.078	.139	.218	.313	.426	.557
	THROW								18-26	21-29	23-32	29-37	35-41	40-47	44-52	48-56	52-61	56-66
	NC								<20	<20	<20	<20	24	34	41	46	50	>50
	VERT. SP								.010	.012	.015	.024	.034	.061	.096	.138	.188	.245
	THROW								6-12	8-15	10-18	15-28	22-39	38-52	48-64	57-70	66-77	70-82
	NC								<20	<20	<20	<20	<20	<20	21	27	32	36

- NC Data based on 10dB room attenuation.
- Throw Data based on isothermal air at 100 and 50 fpm terminal velocity.
- Horizontal Throw is 1 way pattern.
- Static Pressure (SP) in inches w.g.

LINEAR SLOT DIFFUSER

Performance Data:

Supply Linear Diffuser 1" Slot Width

No. of Slots	CFM/FT.	10	20	30	40	50	60	70	80	90	100	125	150	200	250	300	350	400
1	HOR. SP	.010	.040	.090	.160	.250	.360	.490	.640	.810	1.000							
	THROW	4-8	10-15	15-19	18-21	20-24	22-26	23-28	25-30	27-32	28-33							
	NC	<20	<20	25	34	41	47	>50	>50	>50	>50							
	VERT. SP	.007	.029	.066	.117	.183	.263	.358	.468	.592	.731							
	THROW	2-4	8-15	16-22	21-27	25-29	27-32	29-35	31-37	33-39	35-42							
	NC	<20	<20	<20	<20	21	27	32	36	40	43							
2	HOR. SP		.010	.023	.040	.063	.090	.122	.160	.203	.250	.391						
	THROW		6-11	11-15	14-20	18-24	22-26	23-28	25-30	27-32	28-33	31-37						
	NC		<20	<20	<20	22	28	33	37	41	44	50						
	VERT. SP		.007	.016	.029	.046	.066	.089	.117	.148	.183	.285						
	THROW		3-6	6-12	11-21	17-25	22-30	26-35	29-37	33-39	35-42	39-46						
	NC		<20	<20	<20	<20	<20	<20	<20	21	24	31						
3	HOR. SP			.010	.018	.028	.040	.054	.071	.090	.111	.174	.250					
	THROW			7-13	12-17	15-21	18-24	21-28	23-30	26-32	28-33	31-37	34-41					
	NC			<20	<20	<20	<20	22	26	30	33	40	46					
	VERT. SP			.007	.013	.020	.029	.040	.052	.066	.081	.127	.183					
	THROW			3-7	6-12	9-18	13-24	18-29	24-33	27-37	30-41	37-46	43-51					
	NC			<20	<20	<20	<20	<20	<20	<20	<20	<20	26					
4	HOR. SP				.010	.016	.023	.031	.040	.051	.063	.098	.141	.250				
	THROW				8-15	13-18	15-21	18-25	20-28	23-32	25-33	32-37	34-41	40-47				
	NC				<20	<20	<20	<20	<20	22	25	32	38	47				
	VERT. SP				.007	.011	.016	.022	.029	.037	.046	.071	.103	.183				
	THROW				4-8	6-12	9-17	12-22	16-29	20-32	24-36	32-44	39-51	50-58				
	NC				<20	<20	<20	<20	<20	<20	<20	<20	<20	27				
5	HOR. SP					.010	.014	.020	.026	.032	.040	.063	.090	.160	.250			
	THROW					9-16	13-19	16-22	18-25	20-28	23-31	28-37	34-41	40-47	44-51			
	NC					<20	<20	<20	<20	<20	<20	26	32	41	48			
	VERT. SP					.007	.011	.014	.019	.024	.029	.046	.066	.117	.183			
	THROW					4-9	6-12	9-16	11-21	14-26	17-32	27-40	35-47	46-58	56-65			
	NC					<20	<20	<20	<20	<20	<20	<20	<20	21	28			
6	HOR. SP						.010	.014	.018	.023	.028	.043	.063	.111	.174	.250		
	THROW						10-18	14-20	17-23	19-26	21-29	29-36	31-41	40-47	44-52	48-57		
	NC						<20	<20	<20	<20	<20	21	27	36	43	49		
	VERT. SP						.007	.010	.013	.016	.020	.032	.046	.081	.127	.183		
	THROW						5-9	8-13	11-20	13-25	21-36	20-43	42-58	53-65	61-71			
	NC						<20	<20	<20	<20	<20	<20	<20	23	29			
7	HOR. SP							.010	.013	.017	.020	.032	.046	.082	.128	.184	.250	
	THROW							11-19	14-22	17-24	19-27	24-33	29-39	38-47	44-52	48-57	52-61	
	NC							<20	<20	<20	<20	<20	23	32	39	45	50	
	VERT. SP							.007	.010	.012	.015	.023	.034	.060	.093	.134	.183	
	THROW							5-10	7-13	9-16	11-20	16-30	24-40	39-53	49-65	59-71	66-77	
	NC							<20	<20	<20	<20	<20	<20	<20	<20	25	30	
8	HOR. SP								.010	.013	.016	.024	.035	.063	.098	.141	.191	.250
	THROW								12-20	15-23	18-25	22-31	27-37	36-47	45-52	48-57	52-61	56-66
	NC								<20	<20	<20	<20	<20	28	35	41	46	50
	VERT. SP								.007	.009	.011	.018	.026	.046	.071	.103	.140	.183
	THROW								6-11	7-13	9-16	13-25	19-35	34-50	46-62	55-71	64-77	70-82
	NC								<20	<20	<20	<20	<20	<20	<20	21	26	30

- NC Data based on 10dB room attenuation.
- Throw Data based on isothermal air at 100 and 50 fpm terminal velocity.
- Horizontal Throw is 1 way pattern.
- Static Pressure (SP) in inches w.g.

LINEAR SLOT DIFFUSER

Performance Data:

Linear slot diffuser with deflection blades and without volume control damper (3/4" Slot Width).

No. of Slots	Negative SP	.005	.022	.048	.086	.133	.196	.270	.354
1	CFM/Foot	10	20	30	40	50	60	70	80
	NC	<20	<20	<20	<20	25	31	36	40
2	CFM/Foot	20	40	60	80	100	120	140	160
	NC	<20	<20	<20	23	27	33	38	42
3	CFM/Foot	30	60	90	120	150	180	210	240
	NC	<20	<20	23	29	33	39	44	46
4	CFM/Foot	40	80	120	160	200	240	280	320
	NC	<20	<20	26	32	36	42	47	50
5	CFM/Foot	50	100	150	200	250	300	350	400
	NC	<20	<20	28	34	38	44	49	>50
6	CFM/Foot	60	120	180	240	300	360	420	480
	NC	<20	23	31	36	40	46	>50	>50
7	CFM/Foot	70	140	210	280	350	420	490	560
	NC	<20	23	31	37	42	48	>50	>50
8	CFM/Foot	80	160	240	320	400	480	560	640
	NC	<20	24	32	38	44	>50	>50	>50

Linear slot diffuser without deflection blades and with volume control damper (3/4" Slot Width).

No. of Slots	Negative SP	.015	.062	.134	.241	.372	.549	.756	.991
1	CFM/Foot	10	20	30	40	50	60	70	80
	NC	<20	<20	<20	22	27	32	37	42
2	CFM/Foot	20	40	60	80	100	120	140	160
	NC	<20	<20	24	32	38	43	48	>50
3	CFM/Foot	30	60	90	120	150	180	210	240
	NC	<20	<20	30	38	42	49	>50	>50
4	CFM/Foot	40	80	120	160	200	240	280	320
	NC	<20	23	34	43	48	>50	>50	>50
5	CFM/Foot	50	100	150	200	250	300	350	400
	NC	<20	26	38	46	>50	>50	>50	>50
6	CFM/Foot	60	120	180	240	300	360	420	480
	NC	<20	29	40	48	>50	>50	>50	>50
7	CFM/Foot	70	140	210	280	350	420	490	560
	NC	<20	31	43	>50	>50	>50	>50	>50
8	CFM/Foot	80	160	240	320	400	480	560	640
	NC	<20	33	45	>50	>50	>50	>50	>50

- NC Data based on 10dB room attenuation.
- Static Pressure (SP) in inches w.g.

LINEAR SLOT DIFFUSER

Linear slot diffuser with deflection blades and without volume control damper (1" Slot Width).

No. of Slots	Negative SP	.016	.034	.055	.086	.123	.161	.205	.354
1	CFM/Foot	20	30	40	50	60	70	80	100
	NC	<20	<20	<20	<20	24	27	30	35
2	CFM/Foot	40	60	80	100	120	140	160	200
	NC	<20	<20	<20	22	26	29	33	37
3	CFM/Foot	60	90	120	150	180	210	240	300
	NC	<20	<20	<20	24	28	31	34	39
4	CFM/Foot	80	120	160	200	240	280	320	400
	NC	<20	<20	<20	25	29	32	35	40
5	CFM/Foot	100	150	200	250	300	350	400	500
	NC	<20	<20	21	26	30	33	36	41
6	CFM/Foot	120	180	240	300	360	420	480	600
	NC	<20	<20	22	27	31	34	37	42
7	CFM/Foot	140	210	280	350	420	490	560	700
	NC	<20	<20	23	28	32	35	38	43
8	CFM/Foot	160	240	320	400	480	560	640	800
	NC	<20	<20	24	29	33	36	39	45

Linear slot diffuser without deflection blades and with volume control damper (1" Slot Width).

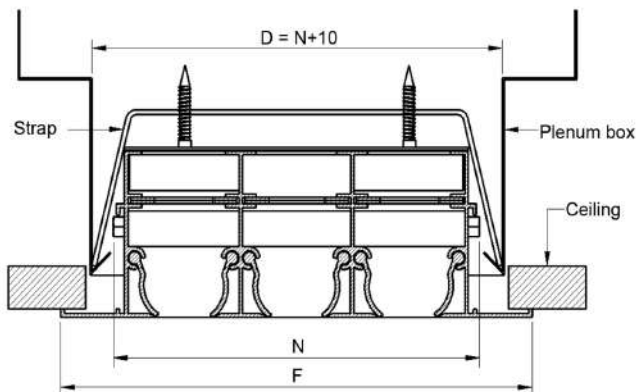
No. of Slots	Negative SP	.026	.095	.154	.240	.344	.451	.574	.991
1	CFM/Foot	20	30	40	50	60	70	80	100
	NC	<20	<20	<20	21	26	30	32	38
2	CFM/Foot	40	60	80	100	120	140	160	200
	NC	<20	<20	23	29	31	37	41	44
3	CFM/Foot	60	90	120	150	180	210	240	300
	NC	<20	<20	25	32	36	40	45	50
4	CFM/Foot	80	120	160	200	240	280	320	400
	NC	<20	22	26	34	39	43	48	>50
5	CFM/Foot	100	150	200	250	300	350	400	500
	NC	<20	24	29	36	42	45	50	>50
6	CFM/Foot	120	180	240	300	360	420	480	600
	NC	<20	26	32	39	45	49	>50	>50
7	CFM/Foot	140	210	280	350	420	490	560	700
	NC	<20	29	36	43	48	>50	>50	>50
8	CFM/Foot	160	240	320	400	480	560	640	800
	NC	<20	31	40	46	>50	>50	>50	>50

- NC Data based on 10dB room attenuation.
- Static Pressure (SP) in inches w.g.

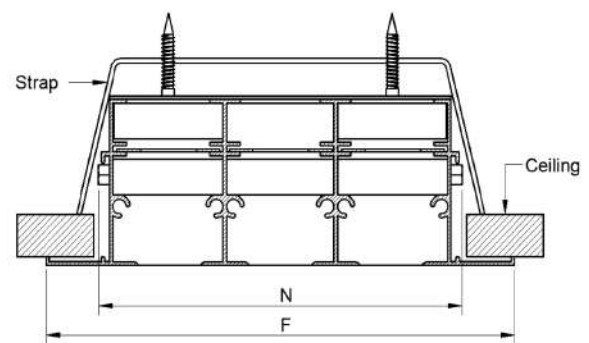
LINEAR SLOT DIFFUSER

INSTALLATIONS

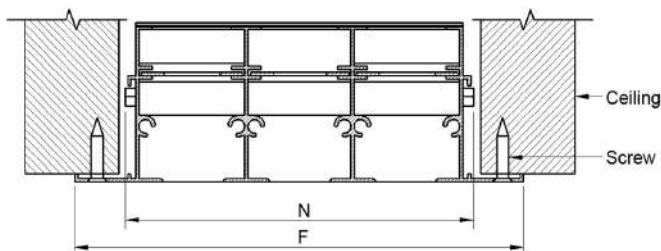
Linear Slot Diffuser Supply (Option P)



**Linear Slot Diffuser Return
Or Dummy (Option C)**



**Linear Slot Diffuser Supply,
Return Or Dummy (Option S)**



Alignment Strips

