

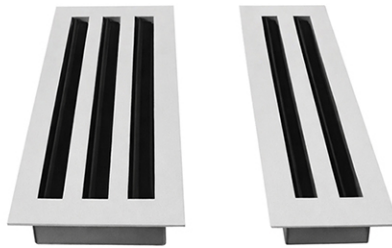


Linear Slot Diffusers

ناشرات الهواء الخطية ذات الفتحات (Linear Slot Diffusers) صُممت ناشرات الهواء الخطية المصنوعة من الألومنيوم (طراز LSD) للاستخدام في تطبيقات الأسقف (كما يمكن استخدامها في الحوائط) لتوفير مظهر معماري متميز. يتوفر طراز LSD إلى نوعان: LSDS: للإمداد (Supply). LSDR: للراجع (Return).

تُستخدم هذه الناشرات في أنظمة التبريد، التدفئة، وأنظمة التهوية الأخرى. المواصفات الفنية:

- التكوين: متوفر بعدد فتحات يتراوح من (1 إلى 8) فتحات.
- عرض الفتحة: يتوفر بعرضين للفتحات: 3/4 بوصة (20 مم) و 1 بوصة (25 مم).
- التصميم: يمكن توفير طراز LSD بتصميم منحنى حسب الطلب.
- الطلاء: يتميز طراز LSD بطلاء قياسي حرارياً لضمان عمر طويل وسهولة في التنظيف.
- الألوان: اللون القياسي هو الأبيض (RAL 9016)، وتتوفر ألوان أخرى عند الطلب.
- يتم تزويد طراز LSDS بزوج من زعانف توجيه النمط (Pattern Deflectors) في كل فتحة لتوفير مرونة كاملة في ضبط نمط توزيع الهواء.





Flow Bar

Linear Slot Diffuser – Plaster-In Type

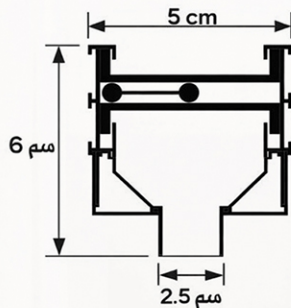
Industrial Cooling Systems Factory presents the Flow Bar system, a concealed linear air diffuser designed for installation prior to gypsum (Plaster-In) works. It is fully integrated into the ceiling structure so that, after final finishing, only a sleek and elegant linear air slot remains visible without any exposed frame. This provides the project with a modern and luxurious architectural appearance that reflects quality execution and attention to detail.

Technical Features:

- Fully concealed design that harmonizes with modern gypsum ceilings
- Custom-manufactured in various lengths and dimensions
- Available in Single, Double, or Multi-Slot configurations
- Smooth and balanced airflow distribution to achieve maximum performance efficiency
- High-quality electrostatic powder-coated finish in approved colors
- Suitable for residential, commercial, administrative, and hospitality projects

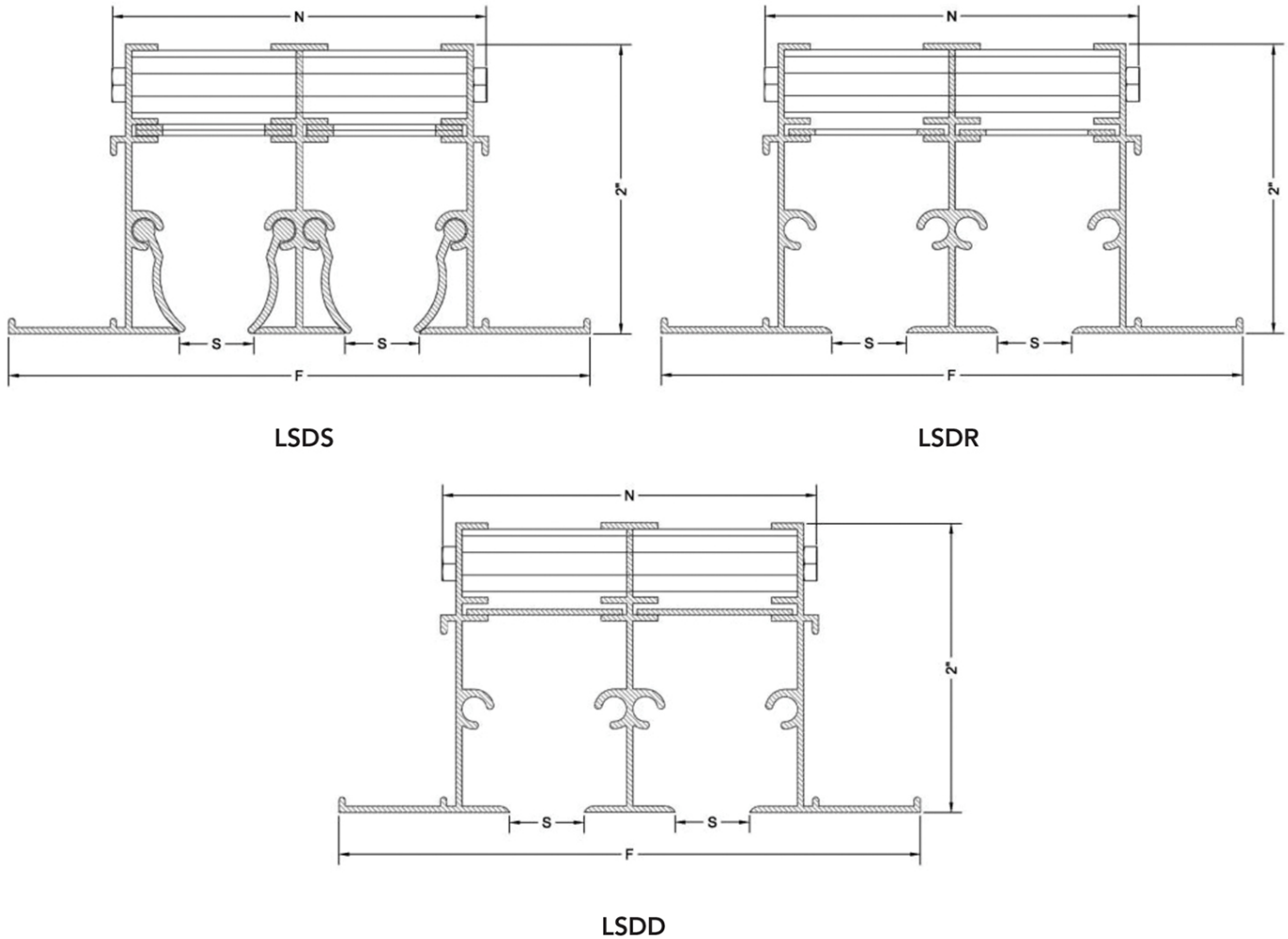
Materials & Specifications:

- Manufactured from high-quality, corrosion-resistant aluminum
- Custom sizes available according to project drawings and client requirements
- Compatible with central air conditioning systems (HVAC Systems)





Dimensional Data



Dimensions

No. of slots	S = 3/4" or 20 mm				S = 1" or 25 mm			
	N		F		N		F	
	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	3-8/16	91	4-15/16	125
3	4-3/4	120	6-1/16	154	5-3/16	132	6-9/16	165
4	6-1/4	158	7-1/2	191	6-7/8	174	8-1/8	207
5	7-11/16	195	9	228	6-7/16	215	9-3/4	248
6	9-1/8	232	10-7/16	265	10-1/16	256	11-3/8	269
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



Linear Slot Diffuser Return Performance Data

LSDR S – 3/4”

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

Linear Slot Diffuser Return Performance Data

LSDR S – 1”

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 Supply Performance Data

LSDS S – 3/4"

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	146	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	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	<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	35-34	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 (in feet) Data based on isothermal air at 100 and 50 fpm terminal velocity respectively.

• Horizontal Throw is 1 way pattern.

• Static Pressure (SP) in inches w.g.



Linear Slot Diffuser Supply Performance Data

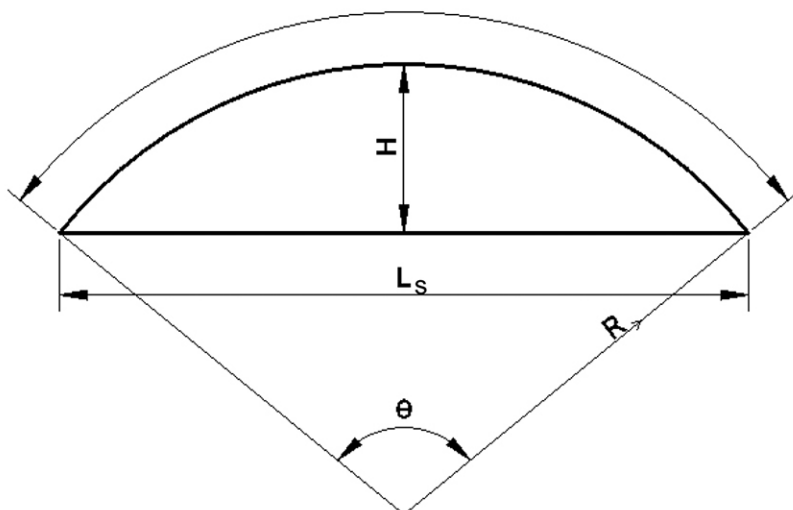
LSDS S – 1”

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	6-13	8-16	11-20	13-25	21-36	20-43	42-58	53-65	61-71		
	NC						<20	<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 (in feet) Data based on isothermal air at 100 and 50 fpm terminal velocity respectively.
- Horizontal Throw is 1 way pattern.
- Static Pressure (SP) in inches w.g.



Diffuser Segments



θ = Angle in degrees.

R = Radius.

H = Segment height.

$= R \times (1 - \cos(\theta / 2))$

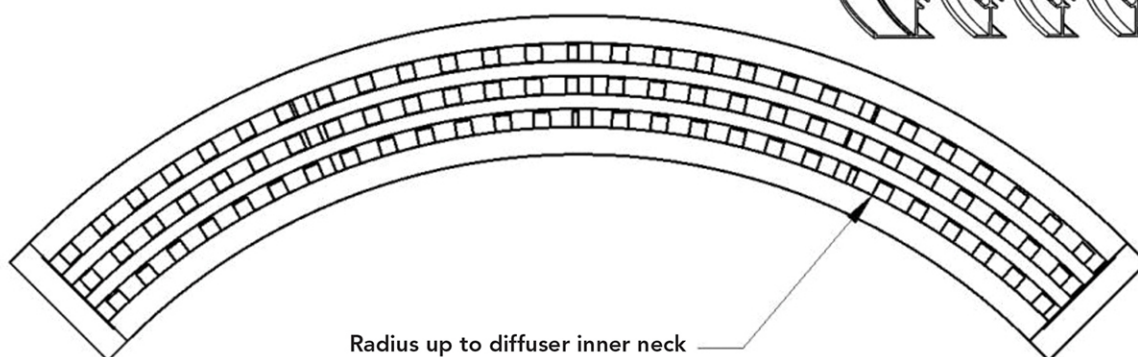
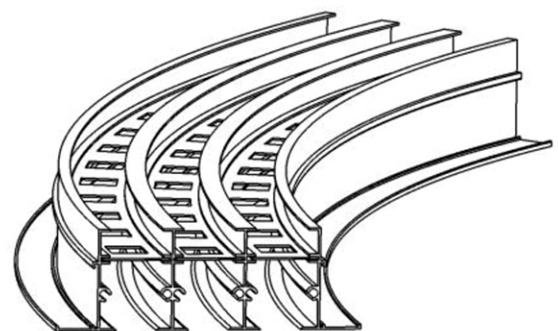
Ls = Segment Length.

$= 2 \times R \times (\sin(\theta / 2))$

L = Arc length

$= \theta \times (\pi / 180) \times R$

LSD-V
CURVED LINEAR SLOT DIFFUSER FOR CEILING



Radius up to diffuser inner neck

Minimum radius for any curve or circle 1 meter. Otherwise, consult Rabie representative

Curve slot diffuser is supplied with single holed strip and with no deflectors.

Minimum two dimensions are required for curves e.g. L & R. Otherwise, please bring forma (a cut to actual carton)