

20/21  
PRODUCTS

Product Catalogue

# Slot Linear Diffuser

Type ( SLD )



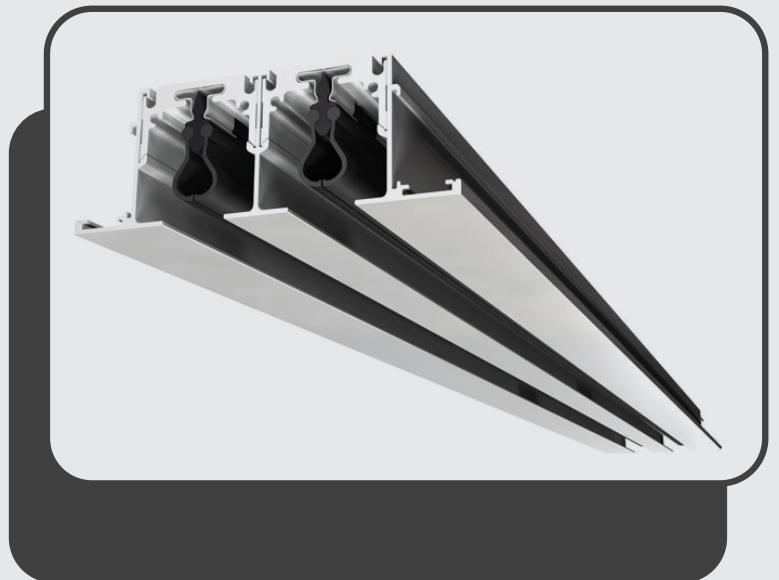
**Khedr Trust**  
ALL AIR PRODUCTS

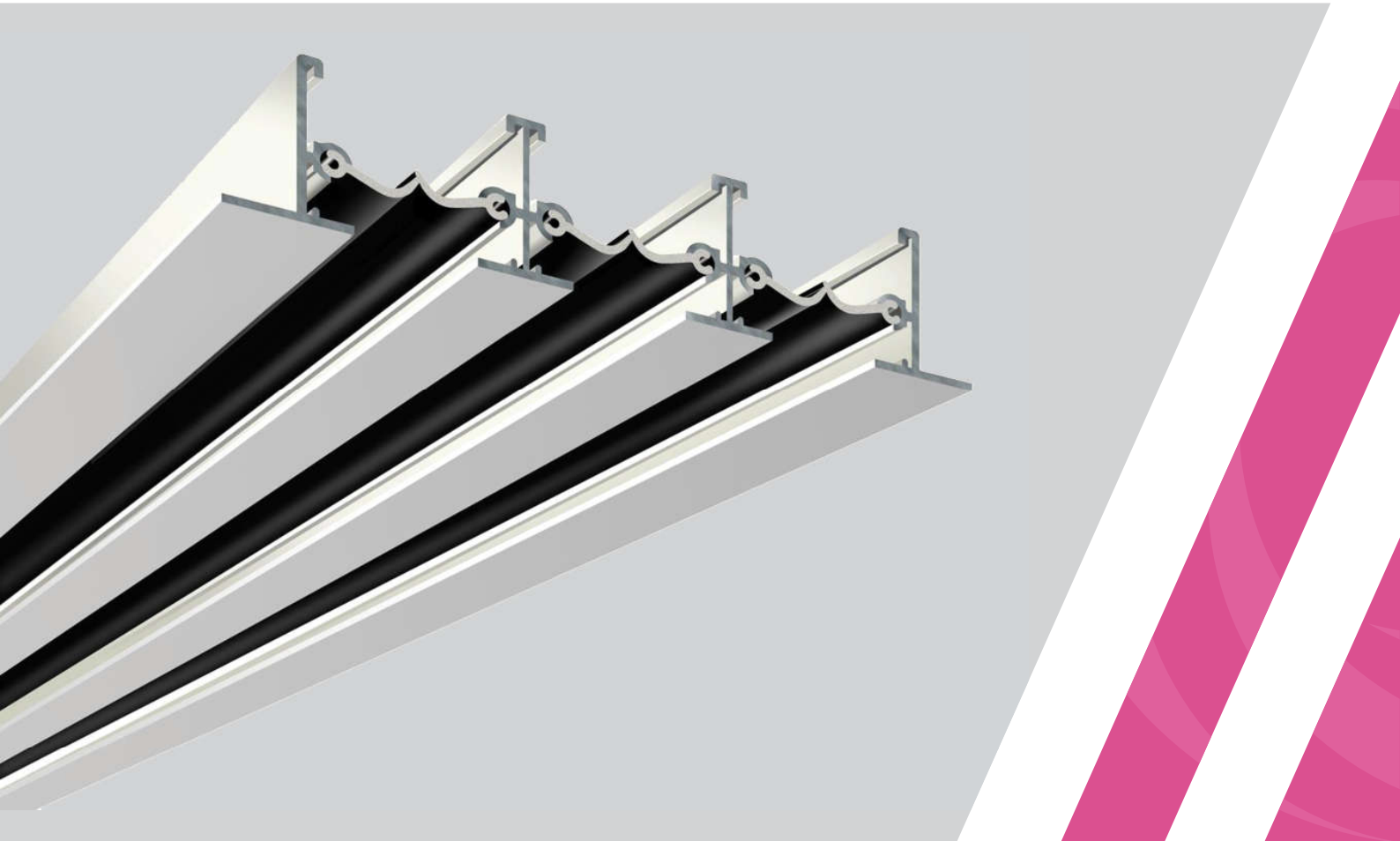
Slot Linear Diffuser products are  
manufactured by



“ Your comfort is  
our priority ”

[www.khedr-eg.com](http://www.khedr-eg.com)





### Models

- SLD
- SLD-PB "With Plenum Box"

### Finish

- Standard Finish - White

### Features

- One to Eight slots wide for air volumes of 10 to 250 CFM / Feet.
- Slot Size 3/4 " Slot .
- Optional Built-in plenum box .
- One-Piece Length up to 8 feet.
- 180 Adjustable deflectors.

# Slot Linear Diffuser

## Model Design

Khedr Model SLD Diffusers are designed for Ceiling & Sidewall .

## Air Pattern

Air Pattern directional changes through 180 by adjustable deflectors.

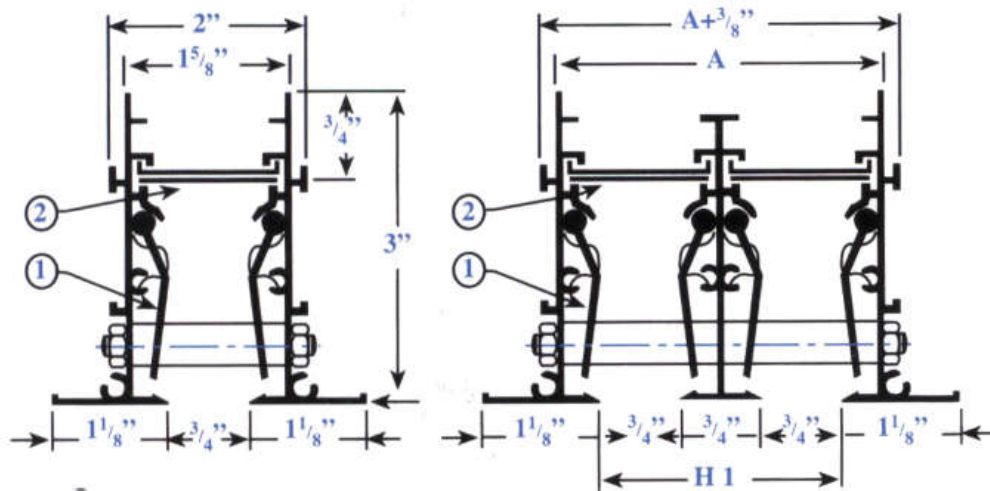
## Splice Plates

Keyways and splice plates facilitate hairline butting of sections to form continuous length.

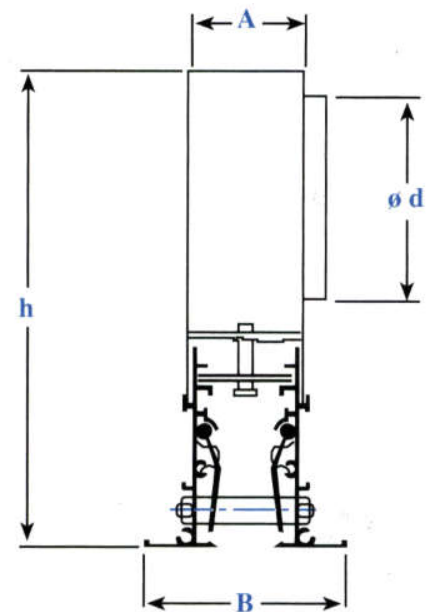
## dampers Position

Volume dampers are positioned in each slot and are accessible through the slot opening.

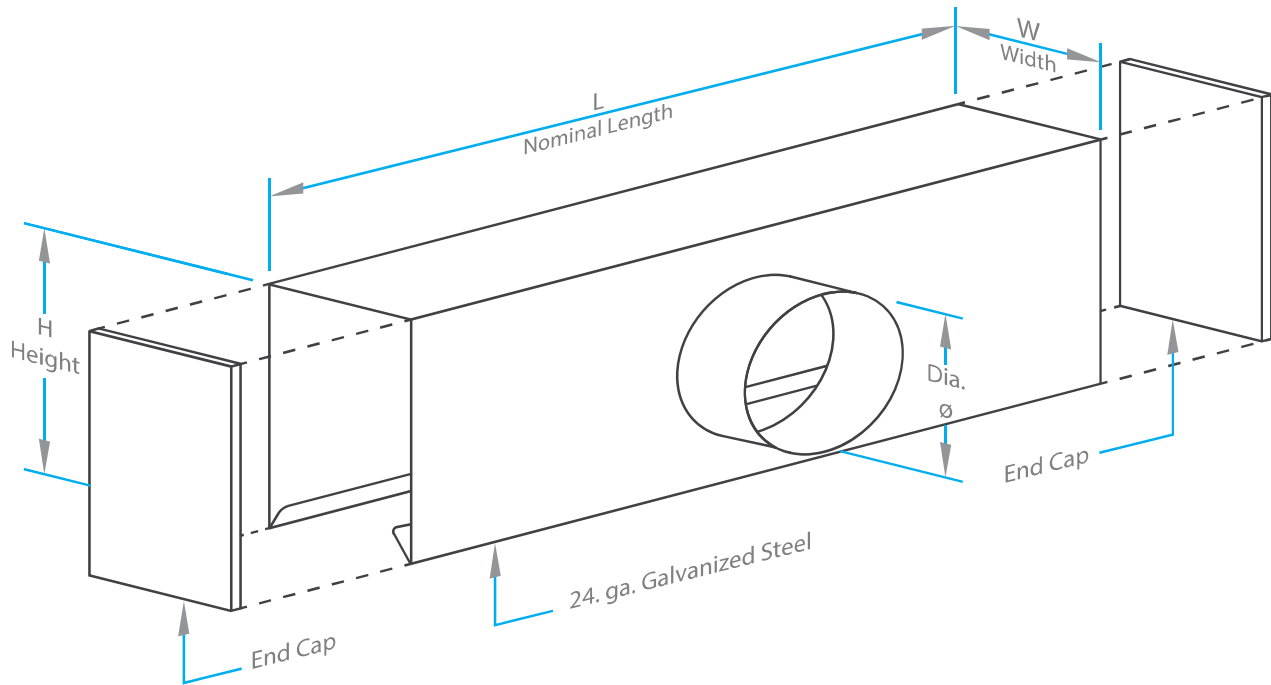
**- Dimensions**



**- Dimensions - With optional Plenum Box**



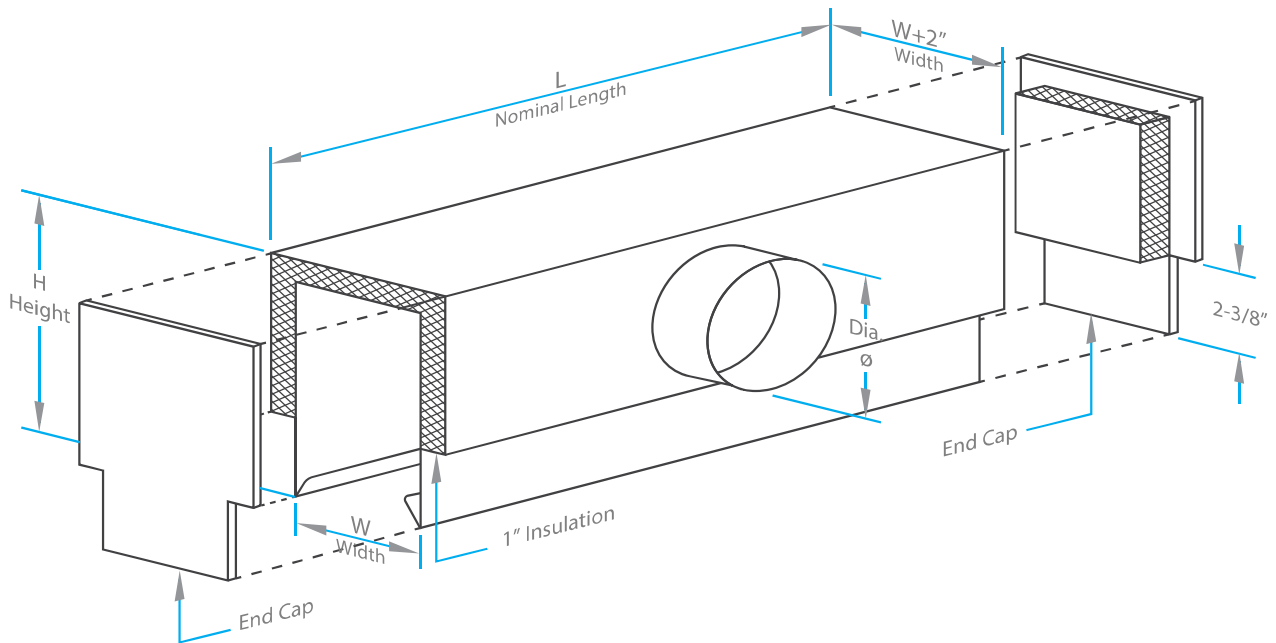
### Type (PB-S) – Slot Uninsulated Plenum Box



No. of Slots	1	2	3	4	5	6	7	8
Height (IN.)	8.36	9.36	11.36	11.36	13.36	13.36	15.36	15.36
Width (IN.)	2.28	3.62	4.96	6.29	7.68	9.02	10.28	11.57
Diameter (IN.)	5	6	8	8	10	10	12	12
Spigot Length Without Damper (IN.)	4	4	4	4	4	4	4	4

Plenum Box products are manufactured by Khedr Trust Co.

**Type (PB-S) – Slot Insulated Plenum Box**



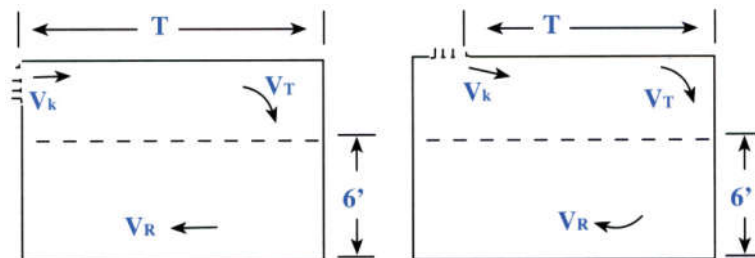
No. of Slots	1	2	3	4	5	6	7	8
Height (IN.)	8.36	9.36	11.36	11.36	13.36	13.36	15.36	15.36
Width (IN.)	2.28	3.62	4.96	6.29	7.68	9.02	10.28	11.57
Diameter (IN.)	5	6	8	8	10	10	12	12
Spigot Length Without Damper (IN.)	4	4	4	4	4	4	4	4

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## - Performance data

CFM per Feet in direction of T	No. of Slots	Static Pressure	Outlet Velocity ( $V_K$ )	Throw (T)		NC
				Ceiling	Side Wall	
10	1	0.01	335	4-6	2-4	20
20	1	0.04	670	8-11	6-9	20
	2	0.01	400	6-9	4-7	20
30	1	0.09	1000	10-14	8-12	25
	2	0.02	600	8-11	6-9	20
	3	0.01	430	7-9	5-7	20
40	1	0.16	1340	13-17	11-15	30
	2	0.04	800	10-14	8-12	25
	3	0.02	575	9-12	7-10	20
	4	0.01	445	8-11	20	24
50	2	0.06	1000	11-15	9-13	25
	3	0.03	715	10-14	8-12	20
	4	0.02	555	9-13	7-11	20
	5	0.01	415	7-12	6-10	20
60	2	0.09	1200	13-17	11-15	30
	3	0.04	860	12-16	10-14	25
	4	0.02	665	11-15	9-13	20
	5	0.01	500	9-13	7-11	20
70	2	0.013	1400	15-20	13-18	30
	3	0.06	1000	13-18	11-16	25
	4	0.03	775	12-16	10-14	20
	5	0.02	585	10-15	8-13	20
	6	0.01	500	9-14	7-12	20
80	3	0.09	1290	17-24	15-21	30
	4	0.05	1000	16-22	14-20	25
	5	0.03	665	13-17	11-15	20
	6	0.02	575	12-16	10-14	20
	7	0.01	500	11-15	9-13	20
90	3	0.09	1290	17-24	15-21	30
	4	0.05	1000	16-22	14-20	25
	5	0.03	750	15-20	13-18	20
	6	0.02	645	14-18	12-16	20
	7	0.01	560	13-17	11-15	20

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### - Selection Procedure

1. Determine the required CFM per each outlet as per cooling Load Calculation.
2. Determine the recommended Outlet Velocity VK according to application as per following Table.
3. Select no. of slots and the length of air outlet that give the required CFM at recommended outlet velocity from performance data tables.

Application	Outlet Velocity VK (FPM)
Broadcast Studios	300 - 500
Residences	500 - 750
Apartments	500 - 750
Mosques , Churches	500 - 750
Hotel Bedrooms	500 - 750
Theaters	500 - 750
Private Offices, Acoustically Treated	500 - 750
Private Offices, not Treated	500 - 800
General Offices	1000 - 1250
Dept. Stores	1500

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Table (1) – Recommended Outlet Velocity \*

\* Table 20 – Carrier Handbook – Part 2. Air Distribution – Chapter 3. Room Air Distribution – p.72

### - PSelection Procedure Example

1. Required 300 CFM as per cooling load calculations.
2. The recommended outlet velocity ranges from 500 - 750 FPM as per pervious table.
3. Determine the length as per required CFM.  
(Example : 40 cfm/feet x 8 feet outlet length,  
50 cfm/feet x 6 feet outlet length, etc ..)
4. Determine the No. of slots as per recommended outlet velocity.
5. You can select 3-Slot 8 Feet length outlet with VK = 575 FPM,  
or 4-Slot 6 Feet length outlet with VK = 555 FPM

CFM per Feet in direction of T	No. of Slots	Static Pressure	Outlet Velocity ( $V_K$ )	Throw (T)		NC
				Ceiling	Side Wall	
40	1	0.16	1340	13-17	11-15	30
	2	0.04	800	10-14	8-12	25
	3	0.02	575	9-12	7-10	20
	4	0.01	445	8-11	20	24
50	2	0.06	1000	11-15	9-13	25
	3	0.03	715	10-14	8-12	20
	4	0.02	555	9-13	7-11	20

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**- How to order**

<b>Type</b>	SLD	Slot Linear Diffuser
<b>Plenum Box</b>	PB	PB Plenum Box 0 No Plenum Box
<b>No. of slots</b>	4	1, 2, 3, 4
<b>Length</b>	8	4, 6, 8
<b>Usage</b>	S	S Supply With Deflectors R Return Without Deflectors
<b>Location</b>	E	0 One Piece With Endcap on Both Sides. E End Piece, with One Endcap "ER: Right , EL: Left". I Intermediate Piece, Without Endcap. C Corner Section
<b>Finish</b>	1	0 Aluminum 1 White Color 2 Other Colors
<b>Damper</b>	0	0 Without Damper 1 With Damper in Inlet collar

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Room Types		Noise Criteria (NC)
Residences, apartments	Living areas	30
	Bathrooms, kitchens, utility rooms	35
Hotels/motels	Individual rooms or suites	30
	Meeting/banquet rooms	30
	Corridors and lobbies	40
	Service/support areas	40
Office buildings	Executive and private offices	30
	Conference rooms	30
	Teleconference rooms	25
	Open-plan offices	40
	Corridors and lobbies	40
Courtrooms	Unamplified speech	30
	Amplified speech	35
Performing arts spaces	Drama theaters, concert and recital halls	20
	Music teaching studios	25
	Music practice rooms	30
Hospitals and clinics	Patient rooms	30
	Wards	35
	Operating and procedure rooms	35
	Corridors and lobbies	40
Laboratories	Testing/research with minimal speech Communication	50
	Extensive phone use and speech communication	45
	Group teaching	35
Churches, mosques, synagogues	General assembly with critical music programs	25
Schools	Classrooms	30
	Large lecture rooms with speech amplification	30
	Large lecture rooms without speech amplification	25
Libraries		30
Indoor stadiums, gymnasiums	Gymnasiums and natatoriums	45
	Large-seating-capacity spaces with speech amplification	50

\* ASHRAE Applications – Ch. 49 Noise and Vibration Control

Other Products are provided by Khedr Trust Co.

#### Diffusers & Grilles

- Squar Ceiling Diffuser
- Circular Ceiling Diffuser
- Slot Linear Diffuser
- Linear Bar Grille
- Aluminum Grille
- Swirl Diffuser
- Perforated Ceiling Diffuser
- Disc Valve Diffuser
- Jet Diffuser
- Eye Ball Diffuser
- Door Grille
- Raised Floor Grid

#### Louvers

- Aluminum Louver
- Sand Trap Louver

#### Dampers

- Blade Volume Damper
- Toothed Wheel Volume Damper
- Gravity Shutter Damper

#### Acoustics

- Sound Attenuator
- Acoustic Louver

#### Smoke Management

- Fire Damper
- Smoke Motorized Damper
- Smoke Vent

#### Duct Works

- Galvanized Steel Duct
- Black Steel Duct
- Stainless Steel Duct
- Spiral Duct
- Flexible Duct
- Canavas
- Flanges
- Flexible Duct Connector



# Khedr Trust

ALL AIR PRODUCTS



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