



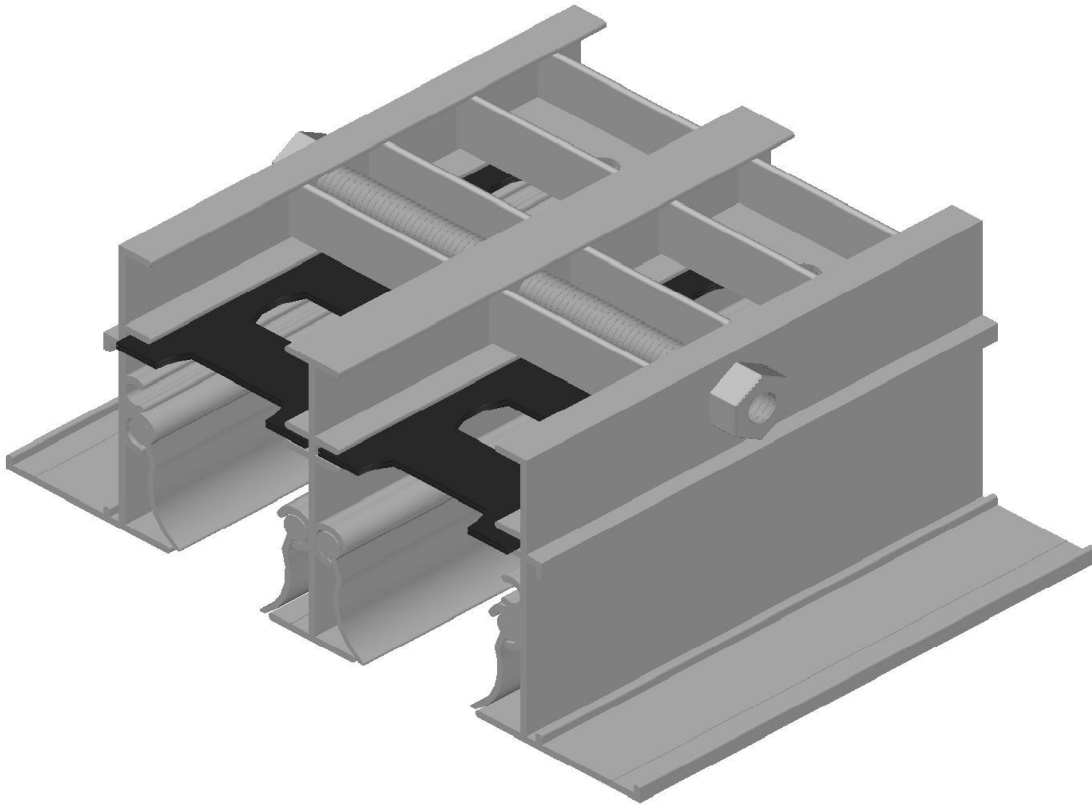
شركة مصنع عالم الناصريه المحدودة

AL NASSERIAH WORLD FACTORY COMPANY LTD

LINEAR SLOT DIFFUSERS



ANA Linear Slot Diffuser Is designed for supplying or returning air, commonly used in Ceiling (Horizontal) air distribution applications. Basically constructed from extruded aluminum profiles and can be made of single or multiple slots .



ANA LSD Construction

Frame and Blades :

Are made of extruded aluminum profile **6063** and a thickness of **(1.2)** mm, Pattern deflectors are adjusted in supply applications to control air pattern .

Dampers:

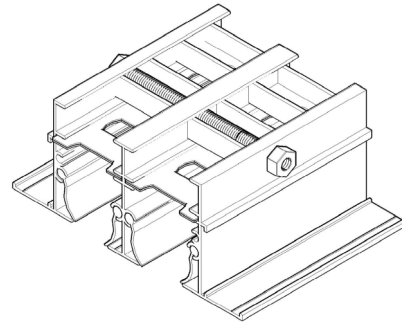
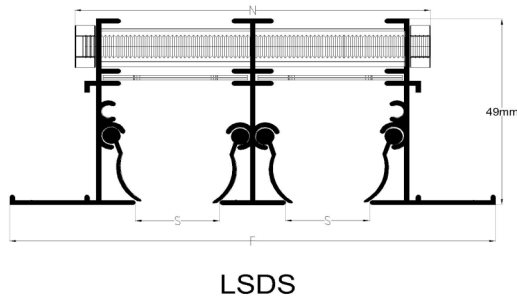
In LSD, Hit and Miss dampers are adjusted for supply applications (two hold strips one is fixed and the other is movable) and can be controlled by moving the notch of the movable holed strip.

Finish:

Electrostatic powder coating is used for LSD with standard white color for the Frame and the body **(RAL 9016)** and black color for the deflector and damper **(RAL 9005)** and other colors are available as per the customer request.

ANA Supply Linear Slot Diffuser

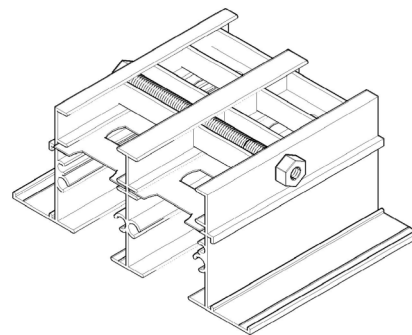
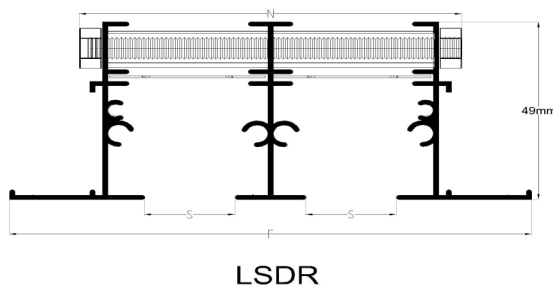
Model : NLSDS



- Constructed from aluminum alloy profile **6063**, thickness of **1.2 mm** and can contain **1 to 8** slots with a **3/4** or **1** inches slot width are available.
- Two Pattern deflectors on each slot to control the air pattern without changing the air flow.
- Hit and Miss damper is fixed inside the profile to control the air flow rate.

ANA Return Linear Slot Diffuser

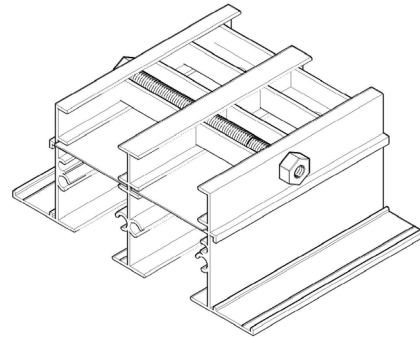
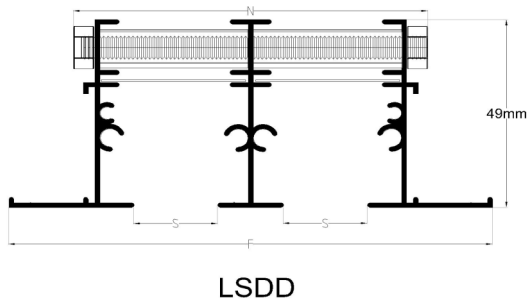
Model : NLSDR



- Constructed from aluminum alloy profile **6063**, thickness of **1.2 mm** and can contain **1 to 8** slots with a **3/4** or **1** inches slot width are available.
- One fixed holed strip is attached inside the profile .

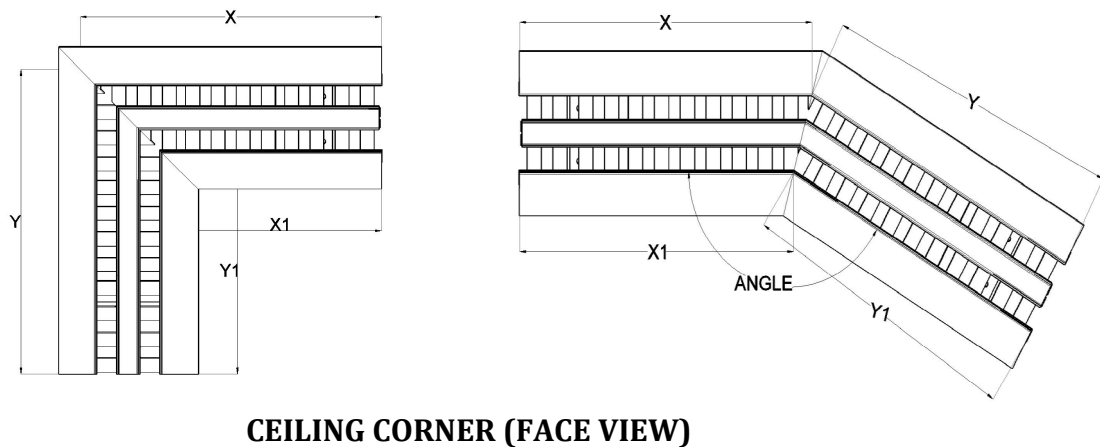
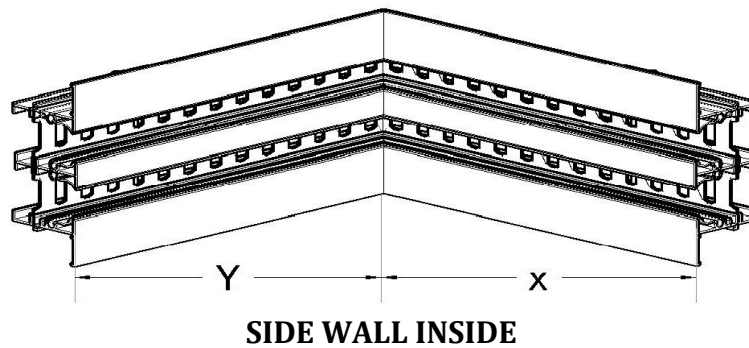
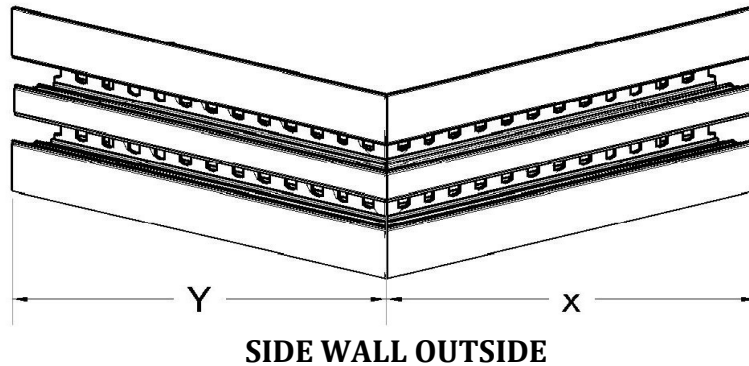
ANA Dummy Linear Slot Diffuser

Model : NLSDD



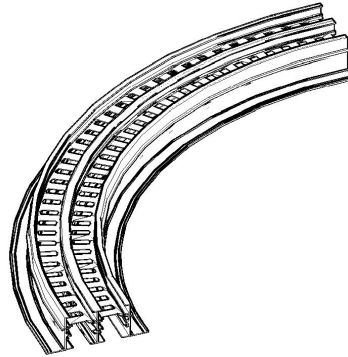
- Constructed from aluminum alloy profile **6063**, thickness of **1.2 mm** and can contain **1 to 8** slots with a **3/4** or **1** inches slot width are available.
- One fixed blocked strip is attached inside the profile .

ANA Corner Linear Slot Diffuser



- Models : Side Wall Inside, Side Wall Outside, Ceiling Corner.
- Constructed from aluminum alloy profile **6063**, thickness of **1.2 mm** and can contain **1 to 8** slots with a **3/4** or **1** inches slot width are available.
- Hit and Miss damper is fixed inside the profile to control the air flow.

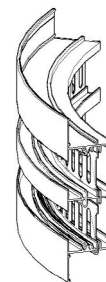
ANA Curved Linear Slot Diffuser



LINEAR SLOT CURVE CEILING



LINEAR SLOT CURVE INSIDE WALL

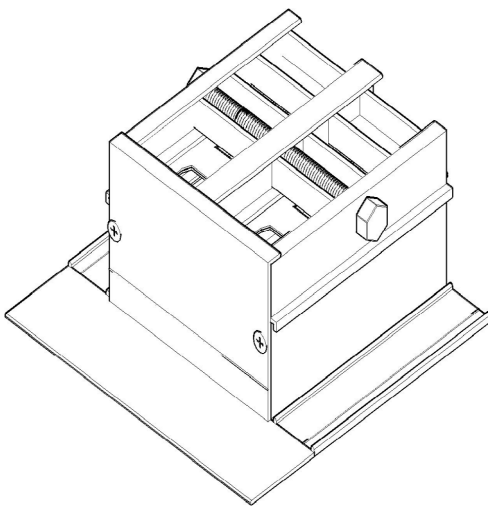


LINEAR SLOT CURVE OUTSIDE WALL

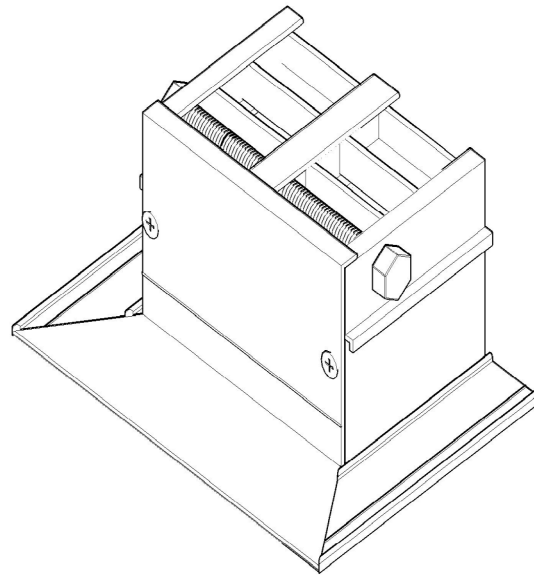
- Models : Curved Linear Slot for Ceiling, Curved Linear Slot for Wall Inside, Curved Linear Slot for Wall Outside.
- Constructed from aluminum alloy profile **6063**, thickness of **1.2 mm** and can contain **1 to 8** slots with a **3/4** or **1** inches slot width are available.
- One fixed holed strip is attached inside the profile .

* When ordering curve LSD, please provide us with minimum of two dimensions of either radius of curvature (Specify if its inner or outer radius), the angle of curvature, segment height, segment length or arc length, and specify if the dimensions are for the inner or outer radius. If not possible please bring a forma (e.g. gypsum or carton cut).

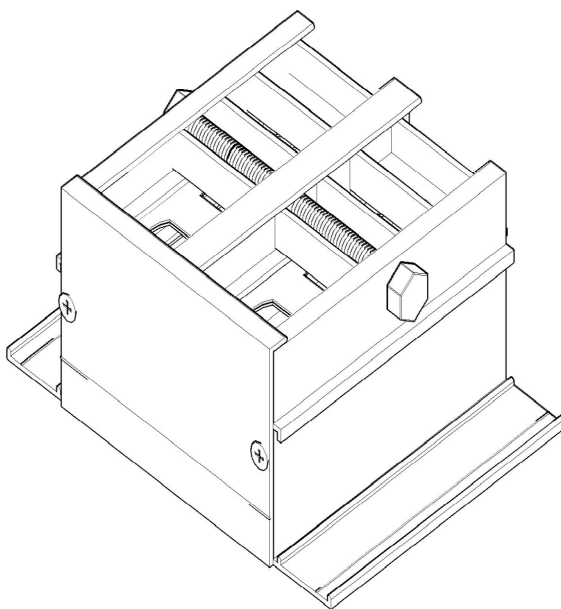
ANA LSD End cap options



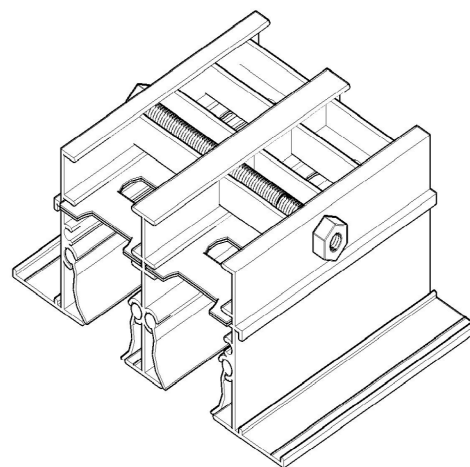
FLANGED END CAP



MITERED END CAP



FLAT END CAP

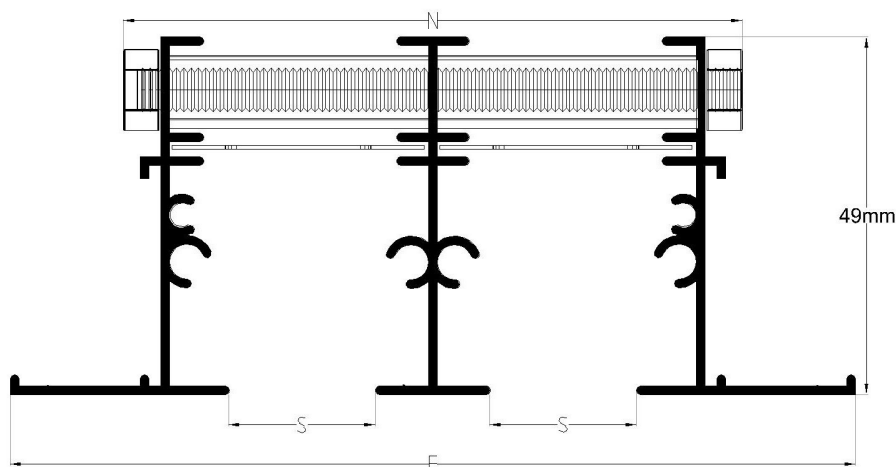


WITHOUT END CAP

*STANDARD ENDCAP - FLANGED ENDCAP

LINEAR SLOT DIFFUSERS

ANA LSD Dimensional data



No. of Slots			1	2	3	4	5	6	7	8
(S) Slot Width 20 mm (3/4 Inches)	Neck Size (N)	mm	46	83	120	158	195	232	269	306
		Inches	1.8	3.3	4.7	6.2	7.7	9.1	10.6	12.0
	Face Size (F)	mm	80	117	154	192	229	266	303	340
		Inches	3.1	4.6	6.1	7.6	9.0	10.5	11.9	13.4
(S) Slot Width 25 mm (1 Inches)	Neck Size (N)	mm	50	91	132	174	215	256	297	338
		Inches	2.0	3.6	5.2	6.9	8.5	10.1	11.7	13.3
	Face Size (F)	mm	84	125	166	208	249	290	331	372
		Inches	3.3	4.9	6.5	8.2	9.8	11.4	13.0	14.6

*Face size = Neck size + 34 mm

LINEAR SLOT DIFFUSERS

Area Factor (Af)

- Horizontal A_f express the free area of the LSD when the deflectors are set horizontally (higher spread and better horizontal discharge).
- Vertical A_f express the free are of the LSD when the deflectors are set Vertically (less spread but better for high ceilings).
- Return A_f express the free are of the LSD when there are no deflectors (best in return and exhaust applications).

No. of slots		1	2	3	4	5	6	7	8
Slot Width 20 mm (3/4 Inches)	Horizontal A_f (sqft)	0.073	0.135	0.201	0.265	0.330	0.395	0.455	0.520
	Vertical A_f (sqft)	0.121	0.180	0.237	0.295	0.355	0.413	0.470	0.530
	Return A_f (sqft)	0.123	0.184	0.242	0.301	0.362	0.421	0.479	0.539
Slot width 25 mm (1 Inches)	Horizontal A_f (sqft)	0.088	0.162	0.241	0.318	0.396	0.474	0.546	0.631
	Vertical A_f (sqft)	0.184	0.274	0.360	0.448	0.540	0.628	0.714	0.806
	Return A_f (sqft)	0.188	0.281	0.367	0.457	0.551	0.641	0.732	0.822

Quick Selection

No. of Slots		1	2	3	4	5	6	7	8
Width of Slot									
Air Flow (CFM/Ft)	3/4 Inches (20mm)	50-150	100-250	125-300	150-400	250-500	300-550	350-650	400-750
	1 Inches (25mm)	75-175	125-300	150-350	200-500	300-600	350-700	400-800	500-900

For selections please use technical data or use the quick selection table to determine the suitable LSD size :

1. Calculate the value of the air flow per unit length of the required LSD .
2. Use the Data sheet to determine the suitable slot number according to the required throw and NC.

LINEAR SLOT DIFFUSERS

ANA Supply Linear Slot diffuser Technical Data

NLSDS -3/4 inch slot width

No. of Slots	Air flow (CFM)/(Ft)	H. Sp (in.w.g)	H. throw (ft.)	H. NC	V. Sp (in.w.g)	V. throw (ft.)	V. NC	No. of Slots	Air flow (CFM)/(Ft)	H. Sp (in.w.g)	H. throw (ft.)	H. NC	V. Sp (in.w.g)	V. throw (ft.)	V. NC
1	10	0.022	7-10	<20	0.010	2-5	<20	5	50	0.022	15-20	<20	0.010	5-10	<20
	20	0.089	13-15	<20	0.039	9-15	<20		60	0.032	18-24	<20	0.014	7-13	<20
	30	0.200	15-19	30	0.088	16-23	<20		70	0.044	20-28	<20	0.019	9-18	<20
	40	0.356	18-21	39	0.157	22-27	20		80	0.057	23-30	<20	0.025	12-23	<20
	50	0.557	20-24	41	0.245	25-30	27		90	0.072	26-32	21	0.032	16-29	<20
	60	0.802	22-26	47	0.353	27-32	33		100	0.089	29-33	24	0.039	19-33	<20
	70	1.092	23-28	>50	0.480	29-35	38		125	0.139	31-37	32	0.061	30-41	<20
	80	1.426	25-30	>50	0.627	31-37	42		150	0.200	34-41	37	0.088	36-49	<20
	90	1.804	27-30	>50	0.794	33-39	46		200	0.356	40-46	46	0.157	48-58	24
	100	2.228	28-33	>50	0.980	35-42	49		250	0.557	44-52	>50	0.245	56-65	33
2	20	0.022	9-13	<20	0.010	3-6	<20	6	60	0.022	16-22	<20	0.010	5-10	<20
	30	0.050	14-19	<20	0.022	7-13	<20		70	0.030	19-26	<20	0.013	7-14	<20
	40	0.089	18-21	<20	0.039	12-21	<20		80	0.040	21-29	<20	0.017	19-18	<20
	50	0.139	20-24	28	0.061	19-26	<20		90	0.050	24-33	<20	0.022	12-22	<20
	60	0.200	22-26	33	0.088	23-31	<20		100	0.062	27-35	<20	0.027	15-27	<20
	70	0.273	23-28	38	0.120	27-35	<20		125	0.097	31-37	27	0.043	23-38	<20
	80	0.356	25-30	42	0.157	30-37	23		150	0.139	34-41	32	0.061	33-45	<20
	90	0.451	27-32	46	0.199	33-39	27		200	0.248	40-47	41	0.109	44-58	22
	100	0.557	28-33	>50	0.245	35-42	33		250	0.387	44-52	49	0.170	55-65	29
	125	0.870	31-37	>50	0.383	39-46	37		300	0.557	48-57	>50	0.245	61-71	35
3	30	0.022	11-16	<20	0.010	4-8	<20	7	70	0.022	17-24	<20	0.010	6-11	<20
	40	0.040	15-21	<20	0.017	7-13	<20		80	0.029	20-27	<20	0.013	7-14	<20
	50	0.062	19-24	<20	0.027	10-20	<20		90	0.037	22-31	<20	0.016	9-18	<20
	60	0.089	23-26	22	0.039	15-26	<20		100	0.045	35-34	<20	0.020	12-22	<20
	70	0.121	23-28	27	0.053	20-30	<20		125	0.071	31-37	22	0.031	18-33	<20
	80	0.158	25-30	31	0.070	25-34	<20		150	0.102	34-41	28	0.045	26-42	<20
	90	0.200	27-32	35	0.088	28-38	<20		200	0.182	40-47	37	0.080	41-55	<20
	100	0.248	28-33	38	0.109	31-42	<20		250	0.284	44-52	44	0.125	51-65	25
	125	0.387	31-37	46	0.170	39-46	26		300	0.409	48-56	50	0.180	61-70	31
	150	0.557	34-41	50	0.245	43-51	32		350	0.557	52-61	>50	0.245	66-77	37
4	40	0.022	13-18	<20	0.010	4-9	<20	8	80	0.022	18-26	<20	0.010	6-12	<20
	50	0.035	16-23	<20	0.015	7-13	<20		90	0.028	21-29	<20	0.012	8-15	<20
	60	0.050	20-27	<20	0.022	10-18	<20		100	0.035	23-32	<20	0.015	10-18	<20
	70	0.068	23-28	<20	0.030	13-25	<20		125	0.054	29-37	<20	0.024	15-28	<20
	80	0.089	26-30	24	0.039	17-30	<20		150	0.078	35-41	24	0.034	22-39	<20
	90	0.113	27-32	27	0.050	22-33	<20		200	0.139	40-47	34	0.061	38-52	<20
	100	0.139	28-33	31	0.061	27-36	<20		250	0.218	44-52	41	0.096	48-64	21
	125	0.218	31-37	38	0.096	34-46	<20		300	0.313	48-56	46	0.138	57-70	27
	150	0.313	34-41	43	0.138	40-51	24		350	0.426	52-61	50	0.188	66-77	32
	200	0.557	40-47	>50	0.245	50-58	33		400	0.557	56-66	>50	0.245	70-82	36

Data Key :

- Air Flow : (CFM)/(ft.)
- Throw : Feet (ft.)
- H.Sp & V.Sp : Pressure drop Inch Water Gauge (in.w.g)
- CFM : Cubic Feet per Minute (CFM)
- NC : Noise Criteria at 10db attenuation.
- H : Deflectors fixed to horizontal air pattern discharge.
- V : Deflectors fixed to Vertical air pattern discharge.

ANA Return Linear Slot diffuser Technical Data

NLSDR - 3/4 inch slot width

No. of Slots	Air flow (CFM)/(Ft)	Pressure Drop (in.w.g)	NC	No. of Slots	Air flow (CFM)/(Ft)	Pressure Drop (in.w.g)	NC
1	10	0.015	<20	5	50	0.015	<20
	20	0.062	<20		100	0.062	26
	30	0.134	<20		150	0.134	38
	40	0.241	22		200	0.241	46
	50	0.372	27		250	0.372	>50
	60	0.549	32		300	0.549	>50
	70	0.756	37		350	0.756	>50
	80	0.991	42		400	0.991	>50
2	20	0.015	<20	6	60	0.015	<20
	40	0.062	<20		120	0.062	29
	60	0.134	24		180	0.134	40
	80	0.241	32		240	0.241	48
	100	0.372	38		300	0.372	>50
	120	0.549	43		360	0.549	>50
	140	0.756	48		420	0.756	>50
	160	0.991	>50		480	0.991	>50
3	30	0.015	<20	7	70	0.015	<20
	60	0.062	<20		140	0.062	31
	90	0.134	30		210	0.134	43
	120	0.241	38		280	0.241	>50
	150	0.372	42		350	0.372	>50
	180	0.549	49		420	0.549	>50
	210	0.756	>50		490	0.756	>50
	240	0.991	>50		560	0.991	>50
4	40	0.015	<20	8	80	0.015	<20
	80	0.062	23		160	0.062	33
	120	0.134	34		240	0.134	45
	160	0.241	43		320	0.241	>50
	200	0.372	48		400	0.372	>50
	240	0.549	>50		480	0.549	>50
	280	0.756	>50		560	0.756	>50
	320	0.991	>50		640	0.991	>50

Data Key :

- Air Flow : (CFM)/(ft.)
- Pressure drop : Inch Water Gauge (in.w.g)
- CFM : Cubic Feet per Minute (CFM)
- NC : Noise Criteria at 10db attenuation.

ANA Supply Linear Slot diffuser Technical Data

NLSDS - 1 inch slot width

No. of Slots	Air flow (CFM)/(Ft)	H. Sp (in.w.g)	H. throw (ft.)	H. NC	V. Sp (in.w.g)	V. throw (ft.)	V. NC	No. of Slots	Air flow (CFM)/(Ft)	H. Sp (in.w.g)	H. throw (ft.)	H. NC	V. Sp (in.w.g)	V. throw (ft.)	V. NC
1	10	0.010	4-8	<20	0.007	2-4	<20	5	50	0.010	9-16	<20	0.007	4-9	<20
	20	0.040	10-15	<20	0.029	8-15	<20		60	0.014	13-19	<20	0.011	6-12	<20
	30	0.090	15-19	25	0.066	16-22	<20		70	0.020	16-22	<20	0.014	9-16	<20
	40	0.160	18-21	34	0.117	21-27	<20		80	0.026	18-25	<20	0.019	11-21	<20
	50	0.250	20-24	41	0.183	25-29	21		90	0.032	20-28	<20	0.024	14-26	<20
	60	0.360	22-26	47	0.263	27-32	27		100	0.040	23-31	<20	0.029	17-32	<20
	70	0.490	23-28	>50	0.358	29-35	32		125	0.063	28-37	26	0.046	27-40	<20
	80	0.640	25-30	>50	0.468	31-37	36		150	0.090	34-41	32	0.066	35-47	<20
	90	0.810	27-32	>50	0.592	33-39	40		200	0.160	40-47	41	0.117	46-58	21
	100	1.000	28-33	>50	0.731	35-42	43		250	0.250	44-51	48	0.183	56-65	28
2	20	0.010	6-11	<20	0.007	3-6	<20	6	60	0.010	10-18	<20	0.007	5-9	<20
	30	0.023	11-15	<20	0.016	6-12	<20		70	0.014	14-20	<20	0.010	6-13	<20
	40	0.040	14-20	<20	0.029	11-21	<20		80	0.018	17-23	<20	0.013	8-16	<20
	50	0.063	18-24	22	0.046	17-25	<20		90	0.023	19-26	<20	0.016	11-20	<20
	60	0.090	22-26	28	0.066	22-30	<20		100	0.028	21-29	<20	0.020	13-25	<20
	70	0.122	23-28	33	0.089	26-35	<20		125	0.043	29-36	21	0.032	21-36	<20
	80	0.160	25-30	37	0.117	29-37	<20		150	0.063	31-41	27	0.046	20-43	<20
	90	0.203	27-32	41	0.148	33-39	21		200	0.111	40-47	36	0.081	42-58	<20
	100	0.250	28-33	44	0.183	35-42	24		250	0.174	44-52	43	0.127	53-65	23
	125	0.391	31-37	50	0.285	39-46	31		300	0.250	48-57	49	0.183	61-71	29
3	30	0.010	7-13	<20	0.007	3-7	<20	7	70	0.010	11-19	<20	0.007	5-10	<20
	40	0.018	12-17	<20	0.013	6-12	<20		80	0.013	14-22	<20	0.010	7-13	<20
	50	0.028	15-21	<20	0.020	9-18	<20		90	0.017	17-24	<20	0.012	9-16	<20
	60	0.040	18-24	<20	0.029	13-24	<20		100	0.020	19-27	<20	0.015	11-20	<20
	70	0.054	21-28	22	0.040	18-29	<20		125	0.032	24-33	<20	0.023	16-30	<20
	80	0.071	23-30	26	0.052	24-33	<20		150	0.046	29-39	23	0.034	24-40	<20
	90	0.090	26-32	30	0.066	27-37	<20		200	0.082	38-47	32	0.060	39-53	<20
	100	0.111	28-33	33	0.081	30-41	<20		250	0.128	44-52	39	0.093	49-65	<20
	125	0.174	31-37	40	0.127	37-46	<20		300	0.184	48-57	45	0.134	59-71	25
	150	0.250	34-41	46	0.183	43-51	26		350	0.250	52-61	50	0.183	66-77	30
4	40	0.010	8-15	<20	0.007	4-8	<20	8	80	0.010	12-20	<20	0.007	6-11	<20
	50	0.016	13-18	<20	0.011	6-12	<20		90	0.013	15-23	<20	0.009	7-13	<20
	60	0.023	15-21	<20	0.016	9-17	<20		100	0.016	18-25	<20	0.011	9-16	<20
	70	0.031	18-25	<20	0.022	12-22	<20		125	0.024	22-31	<20	0.018	13-25	<20
	80	0.040	20-28	<20	0.029	16-29	<20		150	0.035	27-37	<20	0.026	19-35	<20
	90	0.051	23-32	22	0.037	20-32	<20		200	0.063	36-47	28	0.046	34-50	<20
	100	0.063	25-33	25	0.046	24-36	<20		250	0.098	45-52	35	0.071	46-62	<20
	125	0.098	32-37	32	0.071	32-44	<20		300	0.141	48-57	41	0.103	55-71	21
	150	0.141	34-41	38	0.103	39-51	<20		350	0.191	52-61	46	0.140	64-77	26
	200	0.250	40-47	47	0.183	50-58	27		400	0.250	56-66	50	0.183	70-82	30

Data Key :

- Air Flow : (CFM)/(ft.)
- Throw : Feet (ft.)
- H.Sp & V.Sp : Pressure drop Inch Water Gauge (in.w.g)
- CFM : Cubic Feet per Minute (CFM)
- NC : Noise Criteria at 10db attenuation.
- H : Deflectors fixed to horizontal air pattern discharge.
- V : Deflectors fixed to Vertical air pattern discharge.

LINEAR SLOT DIFFUSERS

ANA Return Linear Slot diffuser Technical Data-

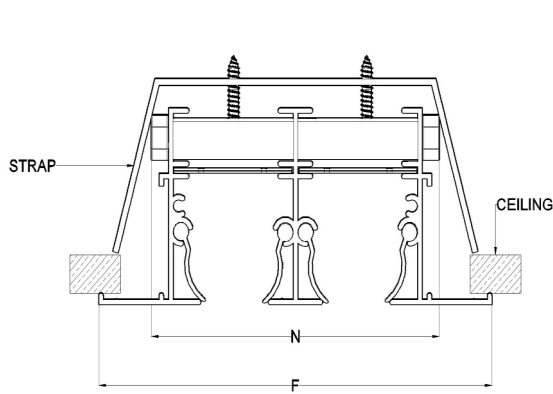
NLSDR - 1 inch slot width

No. of Slots	Air flow (CFM)/(Ft)	Pressure Drop (in.w.g)	NC	No. of Slots	Air flow (CFM)/(Ft)	Pressure Drop (in.w.g)	NC
1	20	0.026	<20	5	100	0.026	<20
	30	0.096	<20		150	0.096	24
	40	0.154	<20		200	0.154	29
	50	0.240	21		250	0.240	36
	60	0.344	26		300	0.344	42
	70	0.451	30		350	0.451	45
	80	0.574	32		400	0.574	50
	90	0.991	38		450	0.991	>50
2	40	0.026	<20	6	120	0.026	<20
	60	0.096	<20		180	0.096	26
	80	0.154	23		240	0.154	32
	100	0.240	29		300	0.240	39
	120	0.344	31		360	0.344	45
	140	0.451	37		420	0.451	49
	160	0.574	41		480	0.574	>50
	180	0.991	44		540	0.991	>50
3	60	0.026	<20	7	140	0.026	<20
	90	0.096	<20		210	0.096	29
	120	0.154	25		280	0.154	36
	150	0.240	32		350	0.240	43
	180	0.344	36		420	0.344	48
	210	0.451	40		490	0.451	>50
	240	0.574	45		560	0.574	>50
	270	0.991	50		630	0.991	>50
4	80	0.026	<20	8	160	0.026	<20
	120	0.096	22		240	0.096	31
	160	0.154	26		320	0.154	40
	200	0.240	34		400	0.240	46
	240	0.344	39		480	0.344	>50
	280	0.451	43		560	0.451	>50
	320	0.574	48		640	0.574	>50
	360	0.991	>50		720	0.991	>50

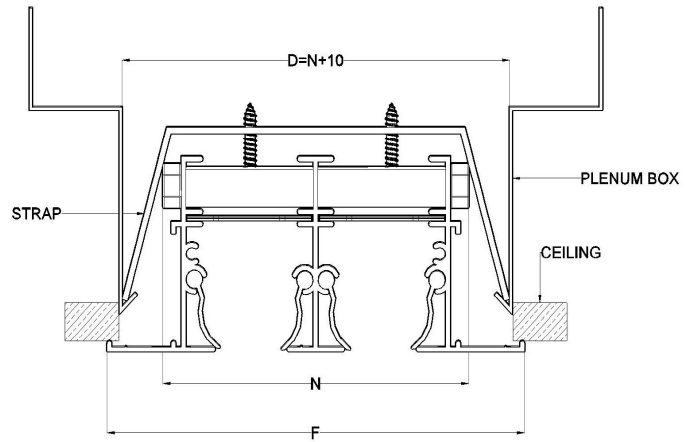
Data Key :

- Air Flow : (CFM)/(ft.)
- Pressure drop : Inch Water Gauge (in.w.g)
- CFM : Cubic Feet per Minute (CFM)
- NC : Noise Criteria at 10db attenuation.

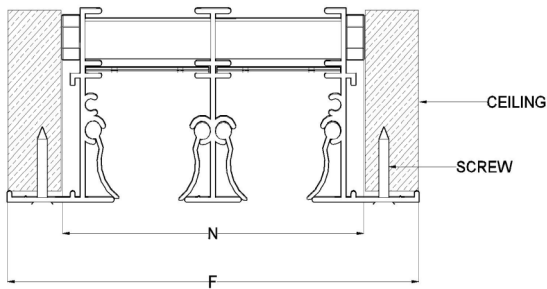
ANA LSD Installations



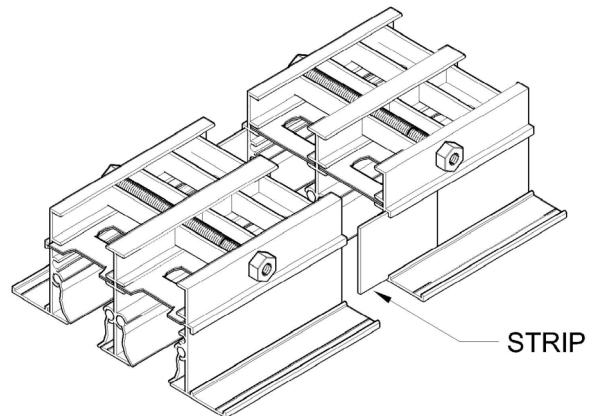
1- Clamp and Strap



2- Clamp and Strap With Plenum



3- Screw Fixing



4- Alignment Strip

ANA Long LSD Alignment

- Linear Slot Diffusers at ANA factory are manufactured in a maximum length of 5 meters per single piece .
- For Longer LSDs (more than 5 meters), we can provide the alignment strips in order to maintain the same alignment (Refer 4-Alignment strip)

[illegible]

[illegible]

[illegible]