

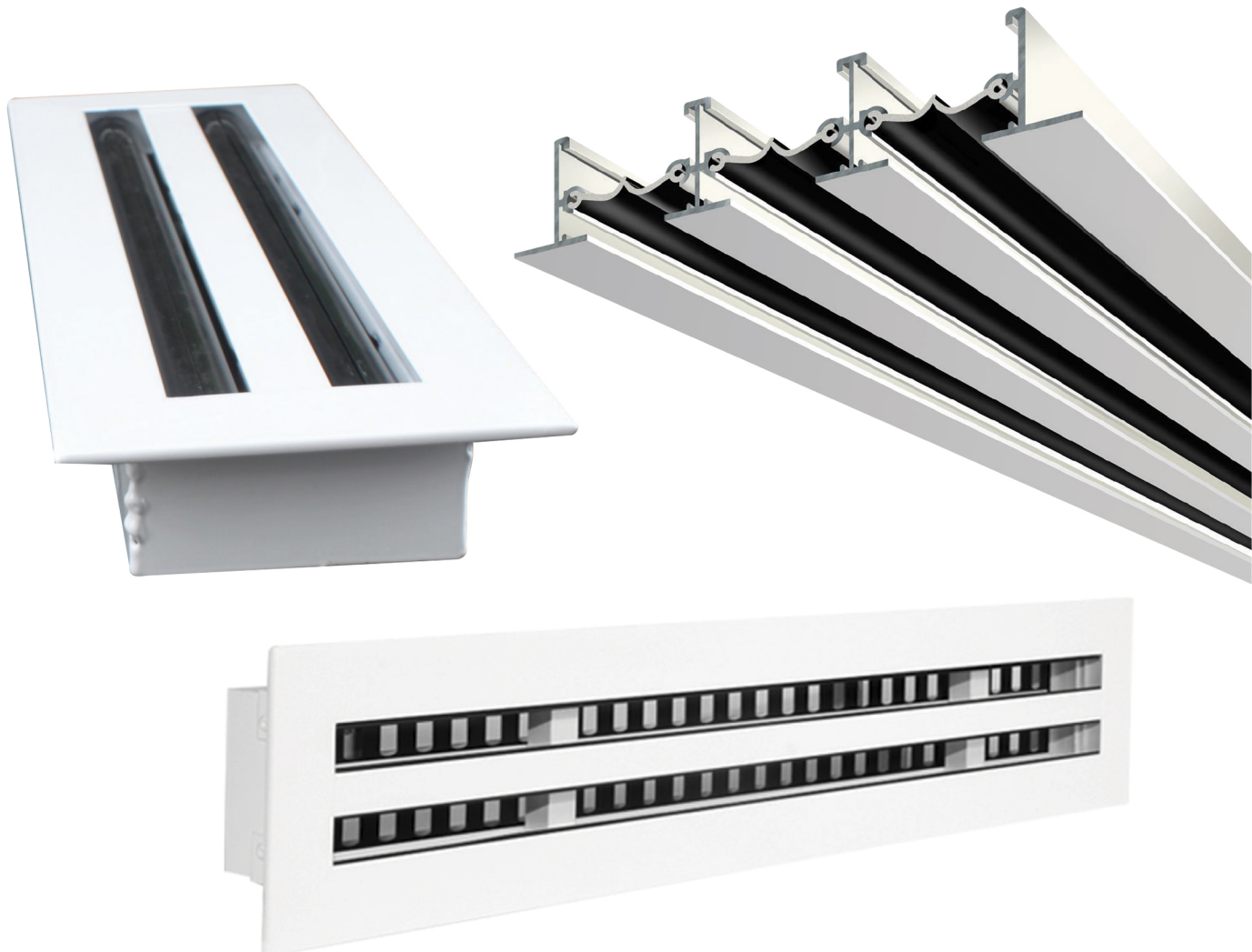
# LINEAR SLOT DIFFUSER

## MANUFACTURER OF AIR OUTLETS :

Grills, Diffusers, Control Volume Damper (VCD), Non Return Damper (NRD), Fire Rated Air Ducting and Louvers Systems.

FABRICATION OF GI DUCTS, PI DUCTS, FLEXIBLE DUCTS & EXHAUST AND FRESH AIR LOUVERS

SALE OF FIRE DAMPERS, MOTORIZED SMOKE FIRE DAMPER (MSFD)



## LINEAR SLOT DIFFUSER

### Construction:

- **Frame & Blades:** High quality extruded aluminium profiles.
- **Frame width:** 28 mm standard; 20 mm also available.
- **Damper:** Hit and miss damper.
- **Slot width:** 20 mm as standard. 16 mm, 25 mm and non standard sizes available as option.
- Number of slots available: 1, 2,3,4,5, 6, 7,8.
- **Length:** Up to 5.8 mtr. available in a single piece.
- Optional accessories: Plenum box unlined internally insulated or externally insulated.

### Standard Finishes:

- Natural anodized aluminum finish.
- Powder coated color finish as per RAL color code.
- Flexibility of finish available.

### Model: AP-SLD Supply Linear Slot Diffuser



### Description:

- Frame and deflection blades are made of high quality extruded aluminum profiled construction with the advantages of corrosion resistance and rigidity.
- Air distribution can be changed vertically or horizontally by means of deflection blades without changing the air flow rate. These blades can be fully adjusted from face opening.
- Dampers are designed in a unique way that it can be used as an equalizing grid. Positive alignment of adjacent sections can be made by using alignment strips.
- Suitable for installation for ceiling and sills.
- Foam gasket sealed around the back of the frame to avoid air leakage.

## LINEAR SLOT DIFFUSER

**Model: AP-RLD Return Linear Slot Diffuser**



### Description:

- Frame and deflection blades are made of high quality extruded aluminum profiled construction with the advantages of corrosion resistance and rigidity.
- Positive alignment of adjacent sections can be made by using alignment strips that are provided with each diffuser.
- Structure is manufactured by mechanical assembly to ensure rigidity and straight line appearance.
- Available without hit and miss damper as standard. Damper will be provided as option. Suitable for installation into ceiling and sills.

**Model: APSLD (C) Curved Supply Linear Slot Diffuser**



### Description:

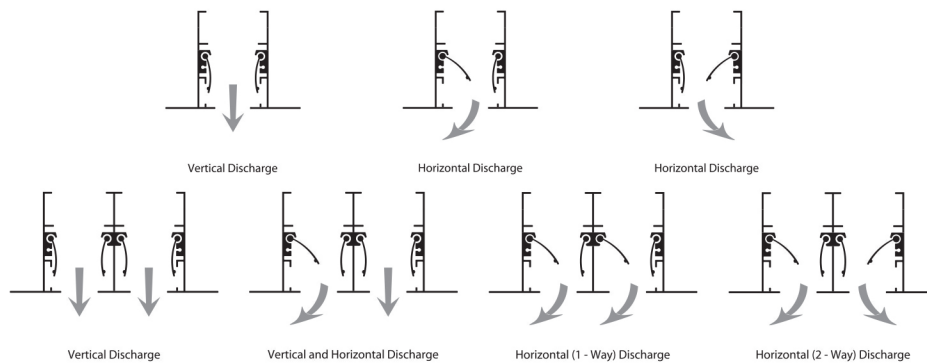
- Frame and deflection blades are made of high quality extruded aluminum profiled construction with the advantages of corrosion resistance and rigidity.
- Hit and miss damper will be fixed rigidly at the rear side of the diffuser as option.
- Positive alignment of adjacent sections can be made by using alignment strips.
- Foam gasket is sealed around the back of the frame as option to avoid air leakage.

## LINEAR SLOT DIFFUSER

- Suitable for installation in ceiling and sills.
- Supply and return air curved linear slot diffusers are available up to a length of 3 meters with a minimum radius of curvature of 1 meter.
- Standard application on the ceiling.

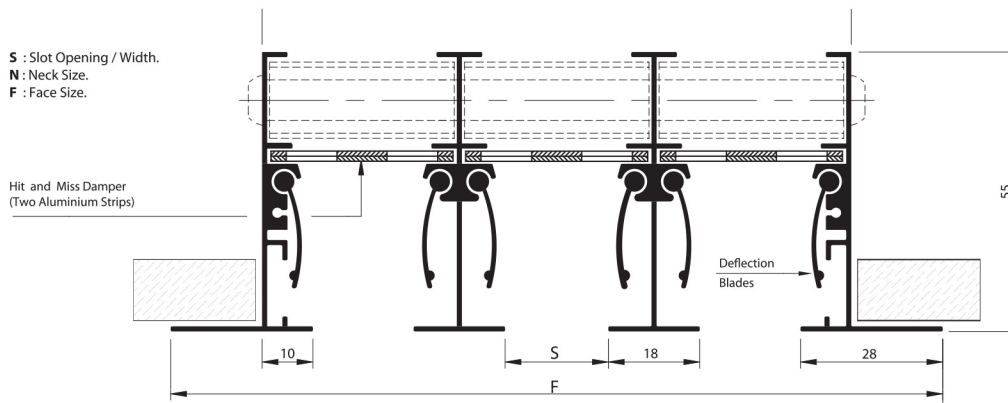
Model: APRLD(C): Same as APSLD(C), without hit and miss damper.

### Single and Multiple Slot Pattern Adjustment



- Two deflection per slot provide an adjustable air pattern of fully 180°

### Construction Dimension Detail



### Neck and Overall Dimensions for Linear Slot Diffusers

No. Of Slots	S= 16 mm		S=20 mm (Standard)		S=25 mm	
	N	F	N	F	N	F
1	36	72	40	76	46	82
2	70	106	78	114	90	126
3	104	140	116	152	134	170
4	138	174	154	188	178	214
5	172	208	192	228	222	258
6	206	242	230	266	266	302
7	240	276	268	304	310	346
8	274	310	306	342	354	390

All dimensions are in mm d subject to  $\pm 1$ mm tolerance

# LINEAR SLOT DIFFUSER

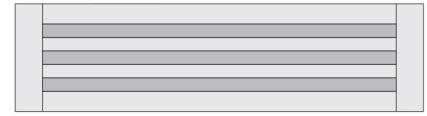
## End Cap/Flange Arrangements



Open Ends



End Cap at One Side



End Cap at Both Sides



End Cap at Both Terminal Sides (Multi Sections)

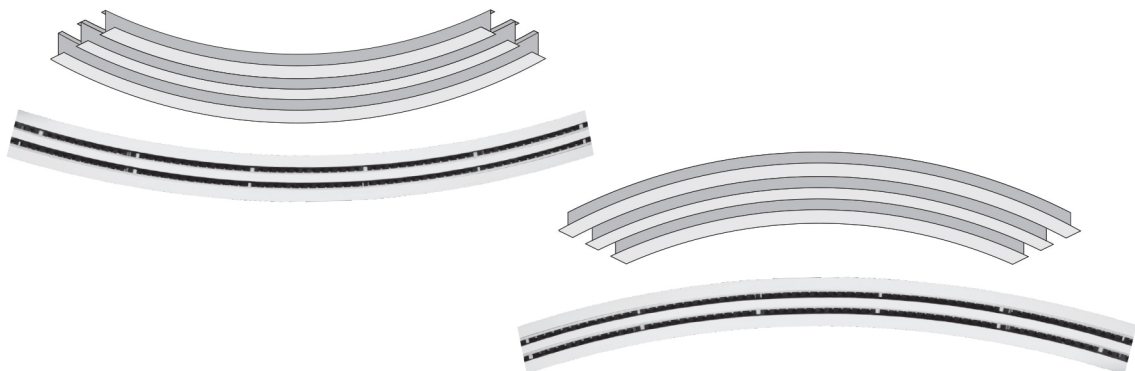
## Metered Corners

TABLE LD-03

Ceiling Mounted Corners		Wall Mounted Corners	
<p>90° Corner Standard</p>	<p>Variable 300 300</p> <p>Variable Angle Corner Optional</p>	<p>90° 300 300</p> <p>Inside 90° Corner Optional</p>	<p>90° 300 300</p> <p>Outside 90° Corner Optional</p>

- Corners are always supplied in 300 mm adjacent sides as standard unless otherwise specified or required.

## Linear Slot Diffusers in Curve Shape



- Curves can be fabricated in minimum curvature radius = 1mtr.
- Curved Applications are not possible for side wall instalments.

# LINEAR SLOT DIFFUSER

## End Cap/ Flange Arrangements



Open Ends



End Cap at One Side



End Cap at Both Sides



End Cap at Both Terminal Sides (Multi Sections)

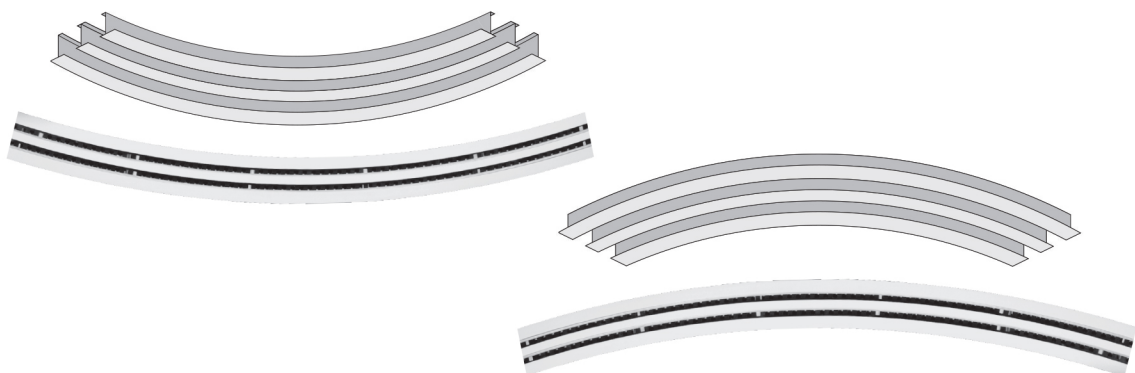
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- Corners are always supplied in 300 mm adjacent sides as standard unless otherwise specified or required.

## Linear Slot Diffusers in Curve Shape



- Curves can be fabricated in minimum curvature radius = 1mtr.
- Curved Applications are not possible for side wall instalments.

# LINEAR SLOT DIFFUSER

## SUPPLY LINEAR SLOT DIFFUSER VERTICAL Model: AP-SLD-Air Flow Data

NO. OF SLOTS	AIR FLOW (L/s)/LM	16 MM SLOT WIDTH				20 MM SLOT WIDTH				25 MM SLOT WIDTH			
		AREA (m <sup>2</sup> /LM)	Pt (Pa)	Throw (M)	NC	AREA (m <sup>2</sup> /LM)	Pt (Pa)	Throw (M)	NC	AREA (m <sup>2</sup> /LM)	Pt (Pa)	Throw (M)	NC
1	25	0.006	10	2.5	15	0.008	7	2.2	<15	0.01	4	1.9	<15
	40		28	3.5	23		18	3.1	18		12	2.7	<15
	55		38	5.5	32		33	4.9	25		21	4.3	21
	60		42	6.2	35		39	5.6	28		25	5	22
2	25	0.017	4	2.5	16	0.019	2	2.2	<15	0.26	2	1.9	<15
	50		14	5.4	21		9	4.8	17		6	4.2	<15
	75		31	6.7	30		20	6.1	24		13	5.5	19
	100		56	8.7	42		36	8	32		23	7.3	27
3	50	0.024	7	3.3	17	0.029	4	2.9	<15	0.038	3	2.6	<15
	75		14	5.5	21		9	4.9	17		6	4.3	<15
	100		26	2.7	30		11	6.6	24		11	6	19
	125		40	9	38		16	8.6	30		16	7.7	24
4	75	0.03	9	4.5	17	0.037	6	4.2	<15	0.046	4	3.9	<15
	100		15	5.05	22		10	5.1	18		6	4.8	<15
	125		24	6.9	29		15	6.3	28		10	5.7	19
	150		35	8.9	35		22	8.2	28		14	7.5	22
5	100	0.036	11	4.8	16	0.046	7	4.5	<15	0.058	4	4.2	<15
	125		16	5.9	21		10	5.6	16		6	5.2	<15
	150		23	7.5	27		14	6.9	22		9	6.3	17
	175		31	9.1	33		20	8.4	25		13	7.7	21
6	125	0.043	11	5	16	0.057	7	4.6	<15	0.068	5	4.2	<15
	150		16	6.2	20		10	5.6	16		7	5	<15
	15		22	7.8	25		14	7.2	20		9	6.6	<15
	200		29	9.7	29		18	9	23		12	8.2	19

### Symbols:

- L/S – Air volume in litres per second
- Pi – Total pressure in Pascal
- Th – Throw in Meters
- NC –Noise Criteria

### Conditions:

- Supply
- Noise Criteria values are based on (10 db) room attenuation
- Damper is fully open.
- Maximum room height 4.0m.

### Notes:

- The large values are based on the minimum terminal velocity of 0.25m/sec.

# LINEAR SLOT DIFFUSER

## SUPPLY LINEAR SLOT DIFFUSER VERTICAL Model: AP-SLD-Air Flow Data

NO. OF SLOTS	AIR FLOW ( L/s)/LM	16 MM SLOT WIDTH				20 MM SLOT WIDTH				25 MM SLOT WIDTH			
		AREA (m <sup>2</sup> /LM)	Pt (Pa)	Throw (M)	NC	AREA (m <sup>2</sup> /LM)	Pt (Pa)	Throw (M)	NC	AREA (m <sup>2</sup> /LM)	Pt (Pa)	Throw (M)	NC
1	25	0.006	10	2.5	15	0.008	7	2.2	<15	0.01	4	1.9	<15
	40		28	3.5	23		18	3.1	18		12	2.7	<15
	55		38	5.5	32		33	4.9	25		21	4.3	21
	60		42	6.2	35		39	5.6	28		25	5	22
2	25	0.017	4	2.5	16	0.019	2	2.2	<15	0.26	2	1.9	<15
	50		14	5.4	21		9	4.8	17		6	4.2	<15
	75		31	6.7	30		20	6.1	24		13	5.5	19
	100		56	8.7	42		36	8	32		23	7.3	27
3	50	0.024	7	3.3	17	0.029	4	2.9	<15	0.038	3	2.6	<15
	75		14	5.5	21		9	4.9	17		6	4.3	<15
	100		26	2.7	30		11	6.6	24		11	6	19
	125		40	9	38		16	8.6	30		16	7.7	24
4	75	0.03	9	4.5	17	0.037	6	4.2	<15	0.046	4	3.9	<15
	100		15	5.05	22		10	5.1	18		6	4.8	<15
	125		24	6.9	29		15	6.3	28		10	5.7	19
	150		35	8.9	35		22	8.2	28		14	7.5	22
5	100	0.036	11	4.8	16	0.046	7	4.5	<15	0.058	4	4.2	<15
	125		16	5.9	21		10	5.6	16		6	5.2	<15
	150		23	7.5	27		14	6.9	22		9	6.3	17
	175		31	9.1	33		20	8.4	25		13	7.7	21
6	125	0.043	11	5	16	0.057	7	4.6	<15	0.068	5	4.2	<15
	150		16	6.2	20		10	5.6	16		7	5	<15
	15		22	7.8	25		14	7.2	20		9	6.6	<15
	200		29	9.7	29		18	9	23		12	8.2	19

### Symbols:

- L/S – Air volume in litres per second
- Pi – Total pressure in Pascal
- Th – Throw in Meters
- NC –Noise Criteria

### Conditions:

- Supply
- Noise Criteria values are based on (10 db) room attenuation
- Damper is fully open.
- Maximum room height 4.0m.

### Notes:

- The large values are based on the minimum terminal velocity of 0.25m/sec.



# LINEAR SLOT DIFFUSER

## RETURN LINEAR SLOT DIFFUSER Model: AP-SLD-Air Flow Data

NO.OF SLOTS	AIR FLOW (L/s)/LM	16 MM Slot Width		20 MM Slot Width		25 MM Slot Width	
		Pt(Pa)	NC	Pt(Pa)	NC	Pt(Pa)	NC
1	40	46	18	29	18	19	<15
	50	70	22	45	21	29	15
	65	118	33	76	31	49	20
	80	180	45	115	40	74	28
2	75	47	18	30	17	19	<15
	90	69	28	44	27	28	19
	100	84	32	54	31	35	21
	125	129	42	83	38	53	28
3	100	47	21	30	21	19	<15
	125	72	29	46	27	30	19
	150	104	35	66	32	43	23
	200	187	48	120	42	77	30
4	150	74	24	47	22	30	<15
	175	100	31	64	29	41	20
	200	128	37	82	34	53	24
	250	198	40	127	35	81	25
5	150	52	22	33	21	21	<15
	200	92	31	59	29	38	19
	250	144	39	92	35	59	25
	300	206	44	132	39	84	33
6	200	72	25	46	24	30	15
	250	113	32	72	30	46	20
	300	16	40	104	36	66	26
	350	220	45	141	40	90	30

### Symbols:

- L/S – Air volume in litres per second
- Pi – Total pressure in Pascal
- Th – Throw in Meters
- NC –Noise Criteria

### Conditions:

- Return
- Noise Criteria values are based on (10 db) room attenuation
- Damper is fully open.
- Maximum room height 4.0m.

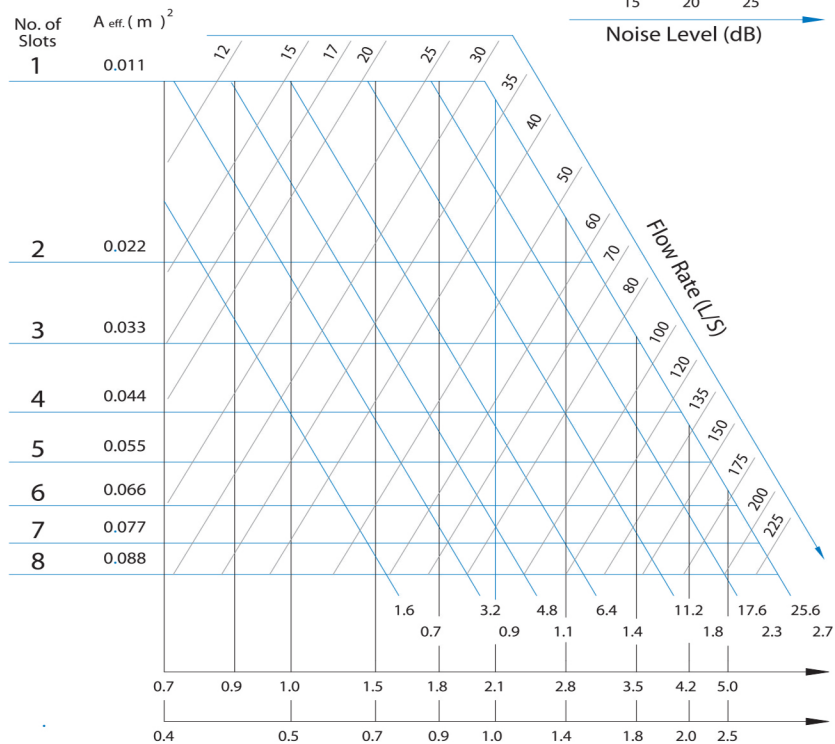
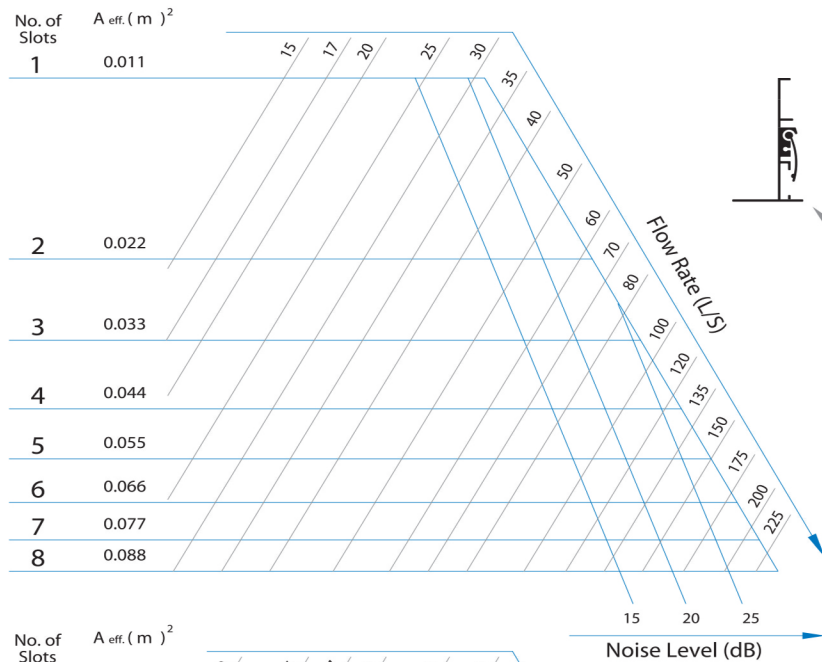
# LINEAR SLOT DIFFUSER

Vertical Discharge

Slot Opening/ Width = 16mm

Correction table for other Lengths:		
Length (m)	Noise Level	Throw (m)
1.0	0	x1.00
1.5	+2	x1.05
2.0	+3	x1.10
2.5	+4	
3.0	+5	
4.0	+6	
5.0	+7	x1.15
6.0	+8	
8.0	+9	
10.0	+10	

Correction table for Return/Extract Applications:	
V <sub>eff</sub> (m/s)	x0.45
Pt(Pa)	x0.65
NC	-10



- Performances are based on a length of one metre and with no wall effect.
- Hit - Miss Damper at full open position.
- For Return/Extract Applications select performance data using above charts and correction table after ignoring throw values.
- Noise Level values are based on 10 dB room attenuation

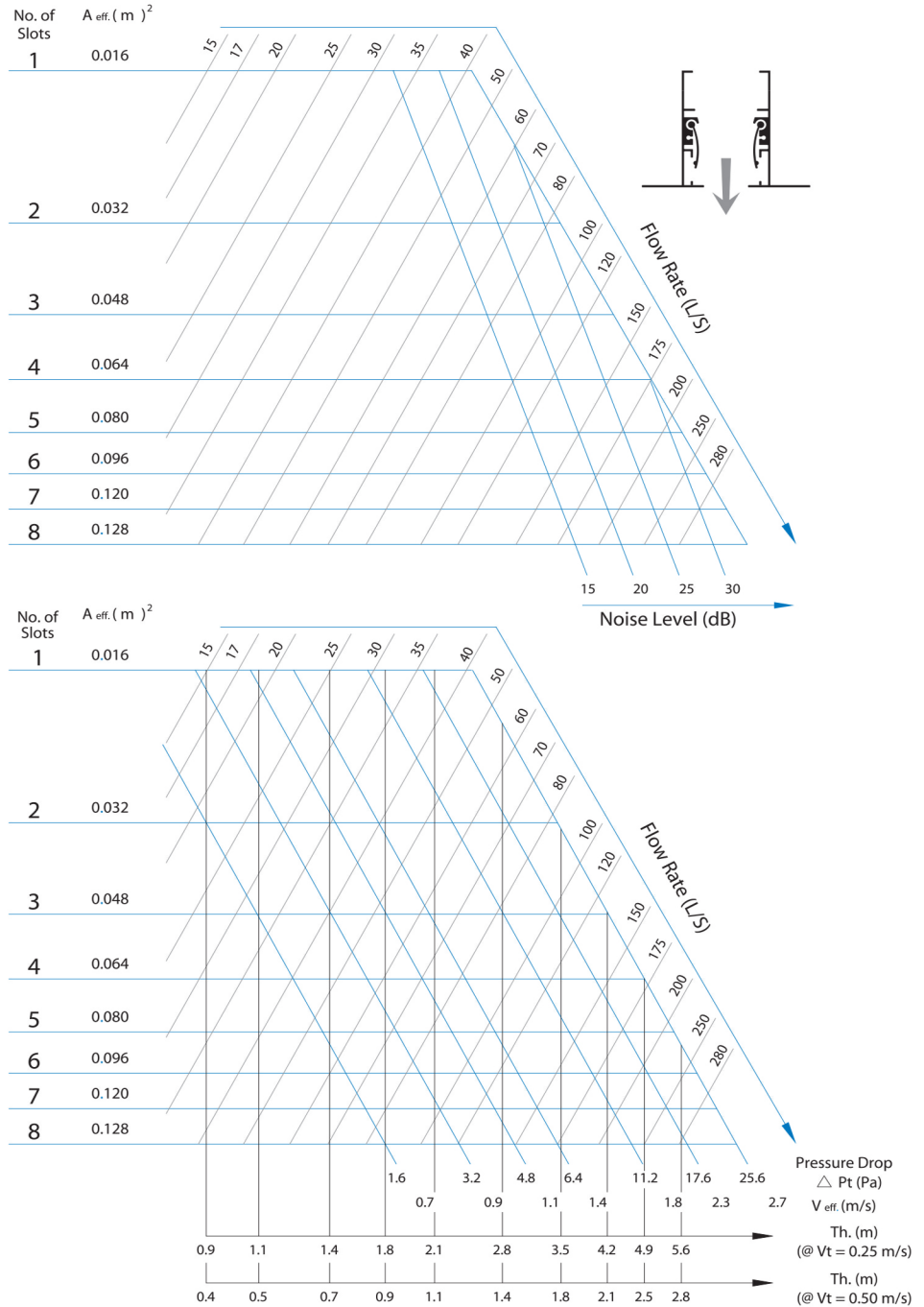
# LINEAR SLOT DIFFUSER

Vertical Discharge

Slot Opening/ Width = 20 mm

Correction table for other Lengths:		
Length (m)	Noise Level	Throw (m)
1.0	0	x1.00
1.5	+2	x1.05
2.0	+3	x1.10
2.5	+4	
3.0	+5	
4.0	+6	
5.0	+7	x1.15
6.0	+8	
8.0	+9	
10.0	+10	

Correction table for Return/Extract Applications:	
V eff.(m/s)	x0.45
Pt(Pa)	x0.65
NC	-10



- Performances are based on a length of one metre and with no wall effect.
- Hit - Miss Damper at full open position.
- For Return/Extract Applications select performance data using above charts and correction table after ignoring throw values.
- Noise Level values are based on 10 dB room attenuation

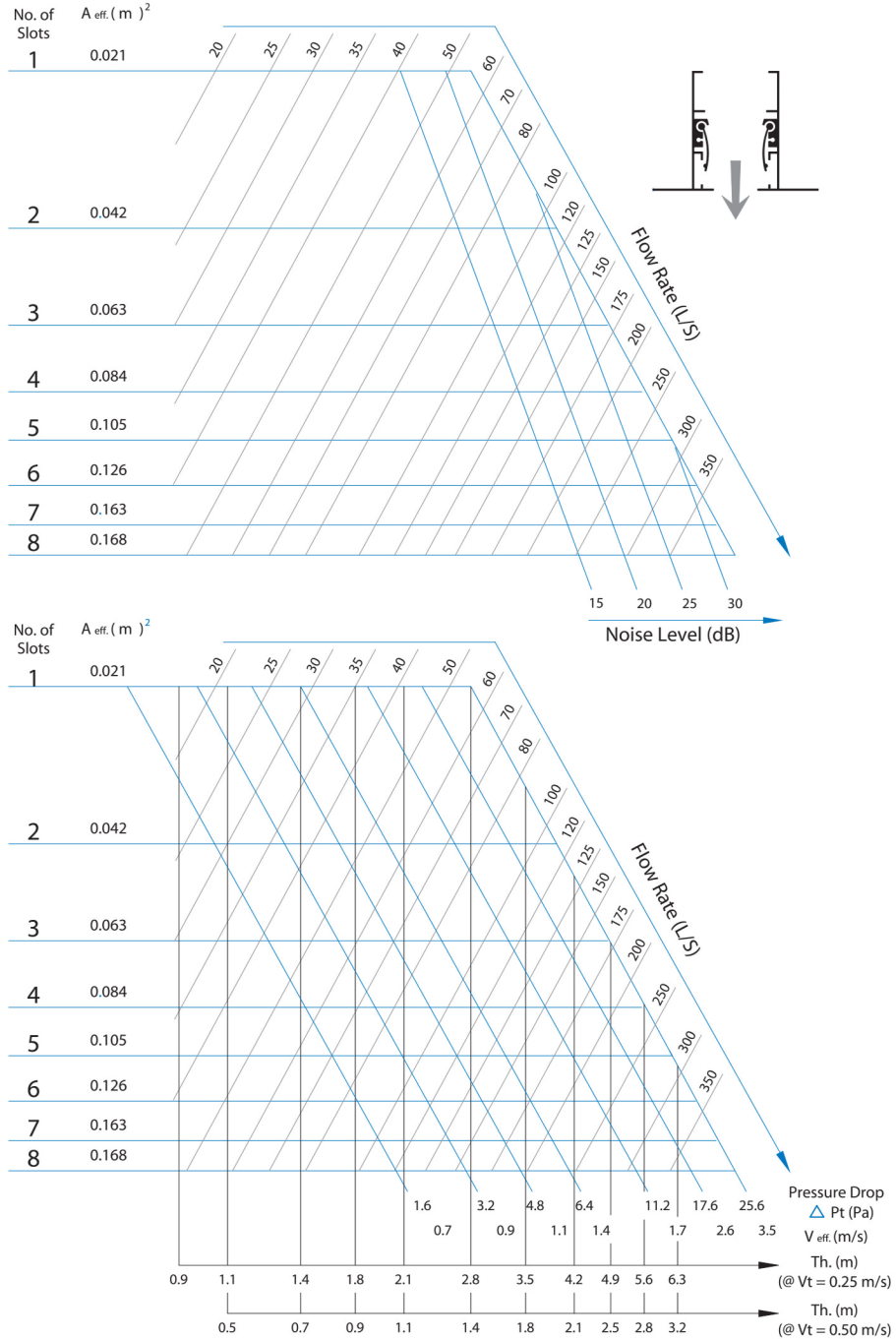
# LINEAR SLOT DIFFUSER

Vertical Discharge

Slot Opening/ Width = 25mm

Correction table for other Lengths:		
Length (m)	Noise Level	Throw (m)
1.0	0	x1.00
1.5	+2	x1.05
2.0	+3	x1.10
2.5	+4	
3.0	+5	
4.0	+6	
5.0	+7	x1.15
6.0	+8	
8.0	+9	
10.0	+10	

Correction table for Return/Extract Applications:	
V eff.(m/s)	x0.45
Pt(Pa)	x0.65
NC	-10



- Performances are based on a length of one metre and with no wall effect.
- Hit - Miss Damper at full open position.
- For Return/Extract Applications select performance data using above charts and correction table after ignoring throw values.
- Noise Level values are based on 10 dB room attenuation

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