



LINEAR SLOT DIFFUSERS - PLASTER TYPE

QUICK FACTS

- ▶ Flexible spread pattern
- ▶ Vertical spread option
- ▶ Simultaneous vertical/horizontal spread option
- ▶ Large induction effect
- ▶ Possible to mount in long runs
- ▶ Corner module
- ▶ Regulation and sound absorbent functions

QUALITY ASSURANCE

An ISO 9001:2015 certified company
Product tested and approved by ETL testing laboratories USA





Linear Slot Diffuser - Plaster Type

**AC-PSLD**

General Information:

Air Control Plaster Slot Diffusers is mainly designed to install above the plaster ceiling for frameless architect view. The Slot diffusers can be installed individually in set lengths or in a continuous line. Continuous runs can consist of a combination of active and inactive sections as well as combining supply and return air applications.

The modules are available with standard 20mm or 25mm Slot with the number of slots ranging from 1 to 6 slots and are available as fixed core. They can also be installed in any type of ceiling application.

The air pattern control is adjustable from the diffuser face and is achieved by means of an adjustable pattern control with each slot, enabling a full 180° air pattern adjustment that provides draft free comfort for both heating and cooling applications.

Features:

- The suggested volume control should be from the main duct run take-off, or from a butterfly damper fitted to the inlet of the cushion head box.
- Construction is from extruded aluminium and the recommended maximum length for each individual section is 3 meters.
- Standard finish is powder coat white

Sizes Available/Dimensions

No. of Slots	20mm slot width		25mm slot width		30mm slot width		35mm slot width		50mm slot width		100mm slot width	
	Face size	Neck size	Face size	Neck size	Face size	Neck size	Face size	Neck size	Face size	Neck size	Face size	Neck size
1	30	36	35	41	40	46	45	51	60	66	110	116
2	55	61	65	71	75	81	85	91	115	121	215	221
3	80	86	95	101	110	116	125	131	170	176	320	326
4	105	111	125	131	145	151	165	171	225	231	425	431
5	130	136	155	161	180	186	205	211	280	286	530	536
6	155	161	185	191	215	221	245	251	335	341	635	641
7	180	186	215	221	250	256	285	291	390	396	740	746
8	205	211	245	251	285	291	325	331	445	451	845	851

** Lip/Edge height 13mm and total height of slot diffuser 45mm (25mm above the gypsum)


Performance Data : 20mm Slot Width
AC-PSLD20/AC-PRLD20

NO SLOTS	Total pressure (Pa)	<10	20	40	60	80
	L/s per metre	26	38	52	70	84
1	Horizontal throw (m) (0.25m/s terminal velocity)	1.2	2.8	4.2	6	7.1
	NR Sound Power Level (dB)	15	25	31	38	42
2	L/s per metre	51	78	108	130	165
	Horizontal throw (m) (0.25m/s terminal velocity)	2.6	4.9	6.8	9	10.5
3	NR Sound Power Level (dB)	17	28	35	41	46
	L/s per metre	78	118	176	209	260
4	Horizontal throw (m) (0.25m/s terminal velocity)	3.6	6.4	8.8	11.1	13.2
	NR Sound Power Level (dB)	19	30	37	43	49
5	L/s per metre	100	160	222	300	350
	Horizontal throw (m) (0.25m/s terminal velocity)	4.6	7.5	10.2	13.4	15.2
6	NR Sound Power Level (dB)	20	32	38	45	52
	L/s per metre	130	195	274	350	412
7	Horizontal throw (m) (0.25m/s terminal velocity)	5.3	8.6	11.3	14.1	16.8
	NR Sound Power Level (dB)	22	33	39	46	55
8	L/s per metre	151	240	325	416	510
	Horizontal throw (m) (0.25m/s terminal velocity)	6.1	9.5	12.8	16	18.1
9	NR Sound Power Level (dB)	24	33	40	49	58
	L/s per metre	180	278	381	496	595
10	Horizontal throw (m) (0.25m/s terminal velocity)	6.8	10.2	13.6	17	19.4
	NR Sound Power Level (dB)	25	34	42	50	60
11	L/s per metre	206	328	432	576	668
	Horizontal throw (m) (0.25m/s terminal velocity)	7.4	11	14.2	18	20.2
12	NR Sound Power Level (dB)	26	36	42	51	60

ACTIVE LENGTH CORRECTION TABLE

Diffuser Active Length (m)	Throw multiplier	Sound level correction
0.4	0.6	-4 dB
0.5	0.7	-3 dB
1	1	0
1.5	1.15	-2 dB
2	1.25	-3 dB
3.0+	1.3	-5 dB

The active length correction table can be used to determine the throw at different active length


Performance Data : 25mm Slot Width
AC-PSLD25/AC-PRLD25

NO SLOTS	Total pressure (Pa)	<10	20	40	60	80
	L/s per metre	28	43	60	80	93
1	Horizontal throw (m) (0.25m/s terminal velocity)	1.2	3	4.9	6.8	7.9
	NR Sound Power Level (dB)	15	25	32	38	42
2	L/s per metre	59	88	120	155	190
	Horizontal throw (m) (0.25m/s terminal velocity)	3	5.2	7.5	9.8	11.1
2	NR Sound Power Level (dB)	18	29	36	42	46
	L/s per metre	88	134	185	248	300
3	Horizontal throw (m) (0.25m/s terminal velocity)	4.2	6.9	9.5	12	14
	NR Sound Power Level (dB)	20	31	37	44	50
4	L/s per metre	120	180	258	318	394
	Horizontal throw (m) (0.25m/s terminal velocity)	5.2	8	11	14	16
4	NR Sound Power Level (dB)	22	33	38	46	52
	L/s per metre	145	221	312	398	487
5	Horizontal throw (m) (0.25m/s terminal velocity)	6	9.2	12.2	15.6	18
	NR Sound Power Level (dB)	24	34	40	47	58
6	L/s per metre	170	266	358	472	562
	Horizontal throw (m) (0.25m/s terminal velocity)	6.8	10	13.4	16.3	19
6	NR Sound Power Level (dB)	25	34	41	49	59
	L/s per metre	208	312	418	550	662
7	Horizontal throw (m) (0.25m/s terminal velocity)	7.3	11	14.1	18	20.2
	NR Sound Power Level (dB)	26	35	42	50	60
8	L/s per metre	242	378	500	632	764
	Horizontal throw (m) (0.25m/s terminal velocity)	8	12	15.9	19.8	22
8	NR Sound Power Level (dB)	26	36	43	52	62

ACTIVE LENGTH CORRECTION TABLE

Diffuser Active Length (m)	Throw multiplier	Sound level correction
0.4	0.6	-4 dB
0.5	0.7	-3 dB
1	1	0
1.5	1.15	-2 dB
2	1.25	-3 dB
3.0+	1.3	-5 dB

The active length correction table can be used to determine the throw at different active length


PERFORMANCE DATA:

AC-PSLD30/AC-PRLD30								
NO OF SLOTS	Total pressure (Pa)	6	17	32	55	80	110	146
	L/s per meter	35	56	78	100	120	140	162
1	Horizontal throw (m) (0.25 m/s terminal velocity)	3.8	5.2	6.2	7	7.8	8.2	9
	NR Sound Power Level (dB)	<10	15	21	28	32	40	45
2	Horizontal throw (m) (0.25 m/s terminal velocity)	60	80	104	121	145	164	175
	NR Sound Power Level (dB)	15	24	29	35	40	47	51
AC-PSLD35/AC-PRLD35								
NO OF SLOTS	Total pressure (Pa)	7	17	30	50	72	98	127
	L/s per meter	42	64	85	107	128	150	170
1	Horizontal throw (m) (0.25 m/s terminal velocity)	4	5.5	6.6	7.4	8.1	8.5	9.5
	NR Sound Power Level (dB)	<15	20	25	32	36	44	47
2	Horizontal throw (m) (0.25 m/s terminal velocity)	65	88	111	134	157	178	190
	NR Sound Power Level (dB)	15	22	27	34	38	45	49
AC-PSLD50/AC-PRLD50								
NO OF SLOTS	Total pressure (Pa)	5	15	30	40	50	60	70
	L/s per meter	48	80	110	140	170	190	215
1	Horizontal throw (m) (0.25 m/s terminal velocity)	4	6.5	8.5	9.5	11	14	21
	NR Sound Power Level (dB)	<19	20	21	25	30	37	45
2	Horizontal throw (m) (0.25 m/s terminal velocity)	97	151	204	260	312	345	390
	NR Sound Power Level (dB)	21	24	29	35	41	48	54
AC-PSLD100/AC-PRLD100								
NO OF SLOTS	Total pressure (Pa)	8	14	23	35	48	63	81
	L/s per meter	94	130	165	201	236	271	307
1	Horizontal throw (m) (0.25 m/s terminal velocity)	6	7.2	8.3	9.2	9.5	10.2	11.1
	NR Sound Power Level (dB)	<20	22	23	25	31	38	46

ACTIVE LENGTH CORRECTION TABLE

Diffuser Active Length (m)	Throw multiplier	Sound level correction
0.4	0.6	-4 dB
0.5	0.7	-3 dB
1	1	0
1.5	1.15	-2 dB
2	1.25	-3 dB
3.0+	1.3	-5 dB

The active length correction table can be used to determine the throw at different active length

**Plaster Slot Diffuser Selection - Vertical / Sidewall projection (No Wall or Ceiling Effect)**

NO SLOTS	Total pressure (Pa)	<10	20	40	60	80
	L/s per metre	28	43	58	78	92
1	Throw (m) (0.50m/s terminal velocity)	0.9	2	3.2	4.5	5.4
	NR Sound Power Level (dB)	15	25	32	37	41
2	L/s per metre	58	85	130	158	190
	Throw (m) (0.50m/s terminal velocity)	2	3.5	5.1	6.8	7.9
3	NR Sound Power Level (dB)	11	28	36	41	45
	L/s per metre	86	168	182	245	295
4	Throw (m) (0.50m/s terminal velocity)	2.9	4.7	6.4	8.1	9.5
	NR Sound Power Level (dB)	12	30	36	44	50
5	L/s per metre	138	180	240	312	390
	Throw (m) (0.50m/s terminal velocity)	3.5	5.6	7.5	9.2	11
6	NR Sound Power Level (dB)	12	32	38	45	51
	L/s per metre	144	220	300	395	480
7	Throw (m) (0.50m/s terminal velocity)	4	6.1	8.2	10.1	12
	NR Sound Power Level (dB)	18	33	39	46	55
8	L/s per metre	170	265	345	450	550
	Throw (m) (0.50m/s terminal velocity)	4.4	6.9	9	11	12.5
9	NR Sound Power Level (dB)	24	34	40	47	58
	L/s per metre	200	300	400	530	620
10	Throw (m) (0.50m/s terminal velocity)	5	7.2	9.6	12	15
	NR Sound Power Level (dB)	25	35	40	49	60
11	L/s per metre	240	360	485	610	780
	Throw (m) (0.50m/s terminal velocity)	5.4	8	10	13	15
12	NR Sound Power Level (dB)	25	35	41	50	60

*For Throw Distance (m) (0.25m/s terminal velocity multiply by 2

Note: We manufacture customised Slot width as per client requirement.