

LINEAR SLOT DIFFUSER
LSD20







# LINEAR SLOT DIFFUSER LSD20

#### PRODUCT DESCRIPTION AND APPLICATION

Airfoil's Australian Made premium Linear Slot Diffuser (LSD20) offers a versatile method of air diffusion. Constructed from Airfoil's engineered aluminium extrusion, the LSD20 is suitable for both supply and return air applications. Featuring a sleek design with an overall frame size of 28mm, external neck-to-flange size of 18mm, and a depth of 50mm, this diffuser is typically ceiling-mounted for a clean linear appearance.

The internal Black "J" Blades of the slots are housed within a 19mm "T" Bar style extrusion. Each blade is fully adjustable up to 180°, allowing for flexible air throw patterns, whether vertical or horizontal. Airfoil's superior 25mm slot opening design ensures greater air volume per slot and reduced noise, resulting in more effective room air circulation.

With a maximum single length size of 4.5 metres, the LSD20 can accommodate up to 8 slots. For longer installations exceeding 5 slots, we recommend constructing the diffuser in 2.4 metre sections due to weight restrictions during installation.

Optionally, the diffuser can be crafted with a 45° "Mitred End" (ME) to transition into square or rectangular perimeter applications. For extended metered runs, Airfoil provides Joining Strips (JS) that align and join straight cut ends, creating a seamless continuous length of linear slot.

Available in our standard white powder-coated finish or Natural Anodised aluminium silver finish, the LSD20 can also be powder-coated to any specified colour upon request. Corresponding Linear Boots (LB) are available to suit all slot widths and duct diameters.

This highly sought-after mode of air diffusion is ideal for perimeter office spaces, corridors, airports, hospitals, shopping centres, cinemas, and various domestic or commercial applications requiring a variable air throw pattern.

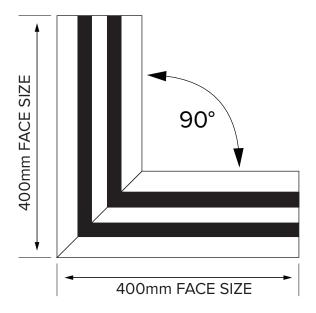




# **LINEAR SLOT DIFFUSER** LSD20

### PRODUCT SPECIFICATIONS AND INFORMATION

- **Product ordering code LSD20**
- Australian Made and Designed
- Aluminium construction
- Used for supply and return air applications
- Manufactured to any length (max. 1 piece length = 4.5m)
- Opening slot size of 20mm
- Overall frame size of 28mm and an external neck-to-flange size of 18mm
- Frame depth 50mm and "T" Bar size of 19mm
- Provides any variable air throw pattern from a vertical or horizontal position
- Ceiling mounted
- Offers clean linear line appearance
- Black "J" Blades are fully adjustable to 180°
- Comes complete with Airfoil's Joining Strips for neat alignment
- Available in our standard white powdercoated range
- Special powder-coated colours available on request
- Product suitable for perimeter office spaces, corridors, airports, hospitals, shopping centres, cinemas and any domestic or commercial application
- Available with Airfoil's Linear Boot (LB) manufactured to suit slot width
- Airfoil tested information available
- The following metric performance data has been derived from exhaustive testing in elaborate labratories of acoustic and vibrational engineers Louis A. Challis and Associates Proprietary Limited. Darling Street, Sydney 2000



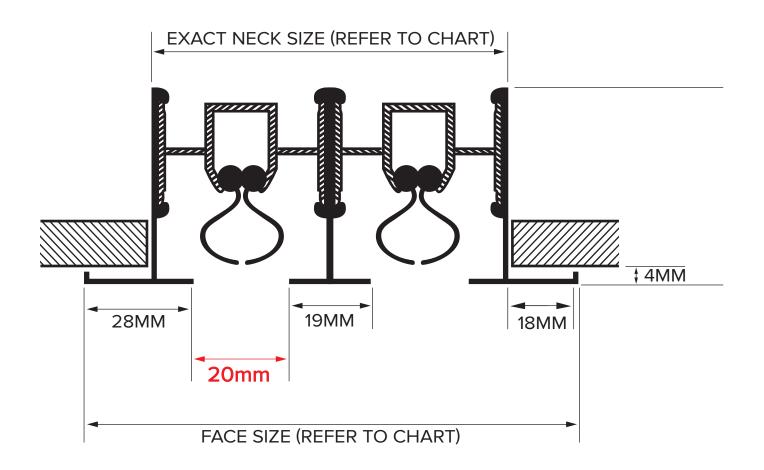
## 90° MITRED CEILING CORNER PIECE





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**CROSS SECTIONAL DIAGRAM** 





#### **DISCLAIMER:**

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### **SLOT ORDERING CODES**

PRODUCT CODE	SLOT	SLOT WIDTH	EXACT NECK SIZE	FACE SIZE	
LSD120	1	20mm	39mm	74mm	
LSD220	2	20mm	78mm	113mm	
LSD320	3	20mm	116mm	151mm	
LSD420	4	20mm	155mm	190mm	
LSD520	5	20mm	193mm	228mm	
LSD620	6	20mm	231mm	266mm	
LSD720	7	20mm	269mm	304mm	
LSD820	8	20mm	307mm	342mm	

### PERFORMANCE DATA - LSD20 SLOT WIDTH SUPPLY APPLICATION

No. Slots	Total Press.	Horiz.	1		4	4	!	9 10		6	24		3	35		49		62	
	Pascals.	Vert.	1		:	2	6		10 1		5	21		29		37			
1	Lit / sec / metre		9		19		28		37		47		55		65		75		
	NR		-		-		-		21		27		33		38		42		
	Throw	Hor.	0.4	1	0.4	2.8	1	3.4	1.6	4	2.4	4.6	2.8	5	3.2	5.2	3.4	8	
	in metres	Vert	0.	6	1.	1.8		.2	3.8		4.4		4.6		5		5.2		
	Lit / sec / metre		19		37		55		75		95		115		130		150		
2	NR		-		-		1	6	26		32		38		43		47		
2	Throw	Hor.	0.4	1.6	0.6	4	1.6	5	2.8	8	3.4	6.4	4	7	4.4	6	4.6	82	
	in metres	Vert	1.3	2	2	.8	4	.4	5	.2	5	.8	6	5.4	7	7	7.	.4	
	Lit / sec /	metre	28		55		8	35	115		140		170		195		225		
3	NR		-			•	1	19		29		35		41		46		50	
3	Throw	Hor.	0.4	2.4	1.2	5	2.2	6.2	3.4	7	4.4	8	5	8.6	5.6	9.2	5.8	9.8	
	in metres	Vert	1.8	3	3	.4	5	.2	6	.4		7	;	8	8.	.6	9.	.2	
	Lit / sec /	metre	37		75		1	15	150		185		225		260		300		
4	NR	-			-		2	21 31		31	37 43		48		52				
	Throw	Hor.	0.4	3.2	1.6	5.8	3.2	7	4	8.2	5	9.2	5.8	9.8	6.4	10.8	6.8	11.4	
	in metres	Vert	1.3	3	4	1	5	.8	7.	.4	8	.2	9	).2	9.	8	10	.4	
	Lit / sec /	metre	47		95		14	140 185		35	235		280		325		375		
5	NR		-		-		2	22	32		38		44		49		53		
5	Throw	Hor.	0.6	3.4	1.8	6.4	3.4	8	4.6	9.2	5.6	10.2	6.4	11	7	12	7.6	12.8	
	in metres	Vert	2.	2	4	.4	6	.4	8	.2	9	.2	10	0.2	1	1	11.	.6	
	Lit / sec /	metre	55		115		17	70	225		280		335		390		445		
6	NR		-			-	2	23	3	3	3	39	4	15	5	0	5	4	
O	Throw	Hor.	0.6	3.8	2.4	7	3.8	8.6	5	9.8	6.2	11	7	12.2	7.6	12.2	8	13.8	
	in metres	Vert	2.	4	4	.6	7.4		9.2		10.2		1	11		12		12.8	
	Lit / sec /	metre	65		130		195		260		325		390		455		520		
7	NR		-		1	3	2	24	3	34	40		46		51		55		
	Throw	Hor.	1	3.8	2.8	7.6	4	9.2	5.6	10.8	6.8	12	7.6	13.2	8.2	14	8.8	15	
	in metres	Vert	2.	4	í	5	7	'.4	9	.8	•	11	1	12	12	.8	13	.8	
	Lit / sec / metre		7!	75 150		0	225		300		375		445		520		595		
8	NR	NR			14		2	25		35		41		47		52		56	
0	Throw	Hor.	1.2	4.4	2.8	8.2	4.4	9.8	5.8	11.4	7.4	12.8	8	13.8	8.8	15	9.2	16	
	in metres	Vert	2.	4	Ĺ	5	7	'.4	10	).2	11	1.6	12	2.8	13	.8	14	.6	





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### PERFORMANCE DATA - LSD20 SLOT WIDTH RETURN APPLICATION

No. Slot	Negative Static Pressure in Pascals	5	10	18	27	40	54	70	112
4	Lit / sec / metre	15	31	47	65	80	95	110	125
1	NR	-	-	21	29	35	40	44	48
2	Lit / sec / metre	31	65	95	125	155	185	220	250
2	NR	-	13	24	32	38	43	47	51
3	Lit / sec / metre	47	95	140	185	235	280	325	375
3	NR	-	15	26	34	40	45	49	53
4	Lit / sec / metre	65	125	185	250	310	375	435	495
4	NR	-	16	27	35	41	46	50	54
5	Lit / sec / metre	80	155	235	310	390	465	545	620
5	NR	-	17	28	36	42	47	51	55
6	Lit / sec / metre	95	185	280	375	465	560	650	745
O	NR	-	18	29	37	43	48	52	56
7	Lit / sec / metre	110	220	325	435	545	650	760	870
,	NR	-	19	30	38	44	49	53	57
0	Lit / sec / metre	125	250	375	495	620	745	870	995
8	NR	-	19	30	38	44	49	53	57

