

# LAMINAR FLOW CLEAN ROOM / ZONE DIFFUSER

## MODEL: LFD-S LFD-R

Kyodo LFD type laminar flow clean room / zone diffuser is the ideal choice for unidirectional flow application. If the supply air were already purified by ULPA/HEPA filter, this diffuser would be most suitable to create a Clean Room environment.

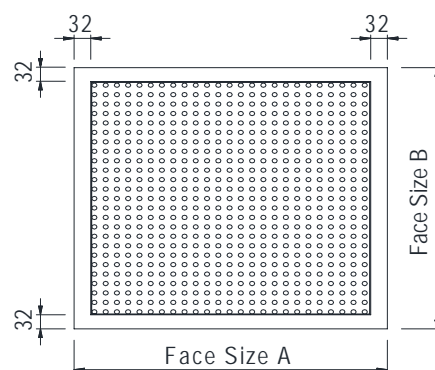
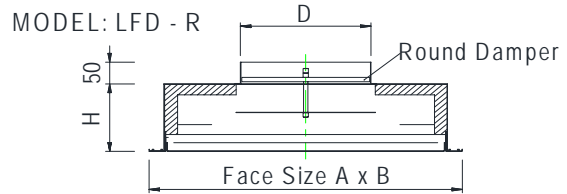
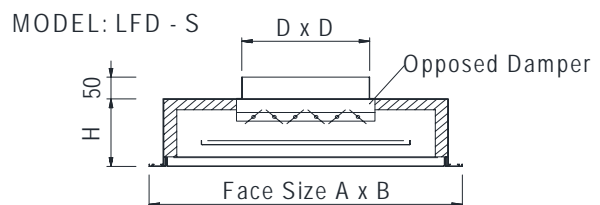
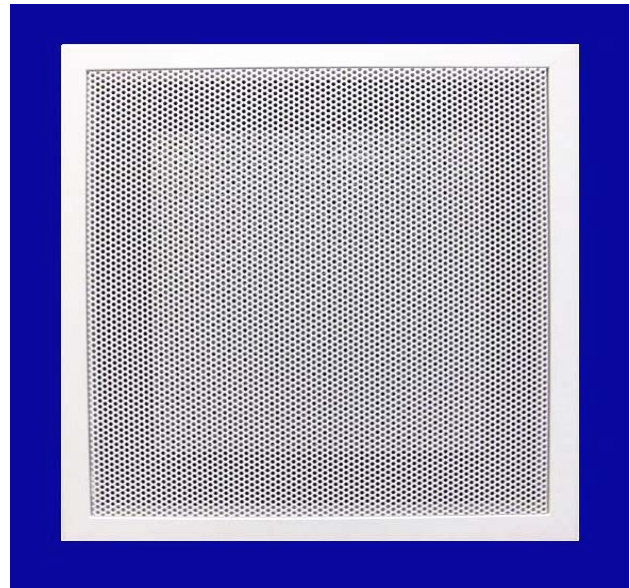
It is suitable for operating rooms, laboratories and other clean rooms where the air must be carefully controlled.

### FEATURES:

- Removable perforated face for cleaning.
- For connection to square or rectangular duct, opposed blade volume control damper is available. Only a screw-driver is needed for damper adjustment. (Model: LFD-S)
- For connection to round duct, round disk type damper is available. Only a screw-driver is needed for damper adjustment. (Model: LFD-R)
- Internal baffles distribute air evenly over perforated face.
- Designed for both lay-in t-bar ceiling systems & surface mount applications.
- Perforated face material is galvanized iron with 5mm diameter holes.

### FINISH:

Standard finish in baked white enamel.  
Other standard colours are available on request.



Size	No.2206	No.2306	No.2406	No.2208	No.2308	No.2408	No.2210	No.2310	No.2410	No.2212	No.2312	No.2412
A	600	600	600	600	600	600	600	600	600	600	600	600
B	600	900	1200	600	900	1200	600	900	1200	600	900	1200
H	150	150	150	150	150	150	150	150	150	150	150	150
D	150	150	150	200	200	200	250	250	250	300	300	300



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## TECHNICAL PERFORMANCE DATA MODEL: LFD-S

SIZE	CAP (l/s)	40	50	60	70	80	90	100	110	120	130	140	150	175	200	225	250
No. 2206	Throw (m)	0.4	0.7	1.1	1.5	1.6	1.7	1.8	2.0	2.3							
	S.P. (Pa)	12	18	28	34	42	48	60	72	86							
	NC	14	18	22	27	31	33	36	39	42							
No. 2306	Throw (m)		0.6	0.9	1.0	1.3	1.4	1.7	1.9	2.1							
	S.P. (Pa)		13	19	25	31	43	52	60	78							
	NC		16	21	25	28	31	34	37	41							
No. 2406	Throw (m)		0.6	0.8	1.0	1.2	1.3	1.6	1.8	2.0							
	S.P. (Pa)		12	18	22	28	38	46	56	70							
	NC		15	20	22	28	30	33	37	40							
No. 2208	Throw (m)		0.5	0.8	1.0	1.2	1.5	1.7	1.9	2.1	2.2	2.5					
	S.P. (Pa)		8	11	15	20	25	34	41	50	58	66					
	NC		13	17	19	22	25	27	30	32	34	36					
No. 2308	Throw (m)			0.6	0.8	1.1	1.4	1.6	1.8	1.9	2.2	2.4					
	S.P. (Pa)			10	13	17	22	29	36	43	50	57					
	NC			15	18	21	24	27	29	31	33	36					
No. 2408	Throw (m)			0.5	0.7	0.9	1.2	1.4	1.6	1.8	2.0	2.1					
	S.P. (Pa)			9	12	16	20	26	33	39	45	52					
	NC			13	17	19	23	25	28	30	32	35					
No. 2210	Throw (m)				0.8	1.0	1.2	1.4	1.6	1.8	1.9	2.1	2.2	2.4	2.5		
	S.P. (Pa)				6	8	12	16	18	22	25	28	32	47	58		
	NC				13	15	18	19	23	25	29	30	32	36	40		
No. 2310	Throw (m)					0.8	1.1	1.2	1.4	1.5	1.6	1.8	2.0	2.2	2.3		
	S.P. (Pa)					7	10	13	15	18	21	24	27	41	50		
	NC					15	17	20	22	24	27	29	31	35	40		
No. 2410	Throw (m)					0.8	1.0	1.1	1.2	1.3	1.4	1.6	1.8	2.0	2.2		
	S.P. (Pa)					6	9	11	13	15	18	21	24	36	43		
	NC					14	15	18	22	24	27	28	31	35	39		
No. 2212	Throw (m)						0.8	1.0	1.2	1.5	1.7	1.9	2.1	2.4	2.6	2.7	2.9
	S.P. (Pa)						6	8	10	13	16	19	24	34	42	48	62
	NC						12	15	16	19	20	22	23	29	33	36	43
No. 2312	Throw (m)							0.8	1.2	1.4	1.5	1.6	2.0	2.3	2.5	2.6	2.7
	S.P. (Pa)							6	8	12	14	17	21	32	38	40	55
	NC							13	165	18	20	21	22	27	31	36	41
No. 2412	Throw (m)								1.0	1.2	1.3	1.5	1.8	2.0	2.1	2.3	2.6
	S.P. (Pa)								7	10	12	15	18	25	33	42	47
	NC								14	17	20	21	22	27	30	36	40

- Performance data is based on tests conducted according to ANSI/ASHRAE Standard 70-2006.
- All data based on full open damper position.
- SP -Static Pressure drops are in Pascals.
- NC -Noise Criteria in dB re  $10^{-12}$  watts, based on a room absorption of 10 dB re  $10^{-12}$  watts.
- CAP -Capacity of flow in litre per second.
- Throw -Throw at 0.25m/s terminal velocity in metres.



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## TECHNICAL PERFORMANCE DATA MODEL: LFD-R

SIZE	CAP (l/s)	40	50	60	70	80	90	100	110	120	130	140	150	175	200	225	250
No. 2206	Throw (m)	0.4	0.8	1.2	1.5	1.7	1.8	1.9	2.1	2.4							
	S.P. (Pa)	11	16	26	33	42	46	58	71	84							
	NC	14	18	22	27	32	34	37	40	43							
No. 2306	Throw (m)		0.7	0.9	1.1	1.3	1.4	1.7	2.0	2.2							
	S.P. (Pa)		12	18	24	29	42	50	58	75							
	NC		17	21	25	29	32	35	38	42							
No. 2406	Throw (m)		0.6	0.8	1.0	1.2	1.3	1.6	1.8	2.0							
	S.P. (Pa)		11	16	20	27	37	43	54	68							
	NC		16	20	24	28	30	34	37	40							
No. 2208	Throw (m)		0.5	0.8	1.0	1.2	1.5	1.7	1.9	2.1	2.3	2.6					
	S.P. (Pa)		7	10	14	18	22	32	40	48	56	63					
	NC		14	17	19	22	25	28	30	33	35	37					
No. 2308	Throw (m)			0.6	0.9	1.1	1.4	1.6	1.8	1.9	2.2	2.4					
	S.P. (Pa)			9	12	14	20	27	34	41	47	54					
	NC			15	18	21	24	27	29	31	33	36					
No. 2408	Throw (m)			0.5	0.7	0.9	1.2	1.4	1.6	1.8	2.0	2.1					
	S.P. (Pa)			8	11	14	18	24	31	37	43	50					
	NC			14	17	20	23	26	29	31	33	36					
No. 2210	Throw (m)				0.9	1.0	1.2	1.4	1.6	1.8	1.9	2.1	2.2	2.4	2.6		
	S.P. (Pa)				6	8	11	15	17	20	23	25	32	45	55		
	NC				14	16	18	20	23	26	29	31	33	37	42		
No. 2310	Throw (m)					0.9	1.1	1.2	1.4	1.5	1.6	1.8	2.0	2.2	2.4		
	S.P. (Pa)					7	9	12	14	16	20	22	25	40	48		
	NC					15	17	20	22	25	28	30	32	36	41		
No. 2410	Throw (m)					0.8	1.0	1.1	1.2	1.3	1.4	1.6	1.8	2.0	2.3		
	S.P. (Pa)					5	9	11	13	14	17	20	23	34	40		
	NC					14	15	19	22	25	27	29	31	36	40		
No. 2212	Throw (m)						0.8	1.1	1.3	1.5	1.8	2.0	2.2	2.5	2.7	2.9	3.0
	S.P. (Pa)						5	7	10	12	15	17	22	32	39	46	60
	NC						13	15	17	19	21	22	24	30	34	38	44
No. 2312	Throw (m)							0.9	1.2	1.4	1.5	1.7	2.0	2.3	2.5	2.7	2.8
	S.P. (Pa)							5	8	11	13	15	19	30	36	38	52
	NC							14	16	19	21	22	23	29	33	38	43
No. 2412	Throw (m)								1.0	1.2	1.3	1.5	1.8	2.0	2.1	2.3	2.7
	S.P. (Pa)								5	8	10	13	15	22	31	40	45
	NC								15	18	20	21	24	28	33	37	42

- Performance data is based on tests conducted according to ANSI/ASHRAE Standard 70-2006.
- All data based on full open damper position.
- SP -Static Pressure drops are in Pascals.
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