Performance Data

Model 92LFDF-AL, 92LFDF-SS

With ULPA Filter • 99.9995% Minimum Removal Efficiency on 0.12 Micrometer Particle Size

Imperial Units

8" (203 mm) dia. Inlet

Module Size	Airflow, CFM	100	120	140	160	180	200	220	240	260	280	290
48" x 12" * or 1200 mm x 300 mm	Total Pressure, Pt	0.20	0.29	0.39	0.51	0.65	0.80	0.96	1.15	1.35	1.56	1.68
	Static Pressure, Ps	0.19	0.28	0.38	0.50	0.63	0.78	0.94	1.12	1.31	1.52	1.63
	NC	—	17	19	22	25	27	29	31	34	35	37
	Throw, T	.5-1-2	.5-1-3	1-1.5-4	1.5-2-4	1.5-2.5-5	2-3.5-5	2.5-4-6	3-4.5-7	3-4.5-7.5	4-5.5-8	4.5-6-9
60" x 12" or 1500 mm x 300 mm	Total Pressure, Pt	0.13	0.18	0.25	0.33	0.42	0.51	0.62	0.74	0.87	1.01	1.08
	Static Pressure, Ps	0.12	0.18	0.24	0.31	0.40	0.49	0.60	0.71	0.83	0.96	1.03
	NC	—	16	18	21	24	25	28	30	33	34	36
	Throw, T	.5-1-2	1-1-3	1-1.5-4	1-2-4	1-2.5-4.5	2-3.5-5	2-4-5.5	3-4-6.5	3-5-7	4-5-8	4-6-8.5

Module Size	Airflow, CFM	100	120	140	160	180	200	220	240	260	280	295
24" x 24" * or 600 mm x 600 mm	Total Pressure, Pt	0.19	0.28	0.38	0.50	0.63	0.78	0.94	1.12	1.31	1.52	1.69
	Static Pressure, Ps	0.19	0.27	0.37	0.48	0.61	0.75	0.91	1.09	1.28	1.48	1.64
	NC	—	17	19	22	25	27	29	31	34	35	37
	Throw, T	.5-1-2	.5-1-3	1-1.5-4	1.5-2-4	1.5-2.5-5	2-3.5-6	2.5-4-6	3-4.5-7	3-4.5-7.5	4-5.5-8	4.5-6-9
36" x 24" or 900 mm x 600 mm	Total Pressure, Pt	0.08	0.12	0.16	0.21	0.26	0.32	0.39	0.47	0.55	0.64	0.71
	Static Pressure, Ps	0.08	0.11	0.15	0.19	0.25	0.30	0.37	0.44	0.51	0.59	0.66
	NC	—	15	18	21	24	26	28	30	33	34	36
	Throw, T	0-1-1.5	0-1-2	0-1-3	1-2-3.5	1-2-4.5	2-3-5	2-3-5.5	2-3.5-6	2.5-4.5-7	3-5-8	3-5-8
48" x 24" or 1200 mm x 600 mm	Total Pressure, Pt	0.05	0.07	0.10	0.13	0.17	0.20	0.25	0.29	0.34	0.40	0.44
	Static Pressure, Ps	0.05	0.07	0.09	0.12	0.15	0.18	0.22	0.26	0.31	0.36	0.40
	NC	—	—	17	20	23	25	27	30	32	33	35
	Throw, T	0-.5-1.5	.5-1-2	.5-1-2.5	1-1.5-3	1-2-4	1-2-5	1.5-2.5-5	2-3-6	2-4-6.5	2-4.5-7	3-5-7

10" (254 mm) dia. Inlet

Module Size	Airflow, CFM	160	180	200	220	240	260	280	300	320	340	360
36" x 24" or 900 mm x 600 mm	Total Pressure, Pt	0.17	0.21	0.26	0.31	0.37	0.44	0.51	0.58	0.66	0.75	0.84
	Static Pressure, Ps	0.16	0.20	0.25	0.30	0.36	0.42	0.49	0.56	0.64	0.72	0.81
	NC	15	18	20	21	23	26	28	30	32	34	36
	Throw, T	1-2-3.5	1-2-4.5	2-3-5	2-3-5.5	2-3.5-6	2.5-4-7	3-5-8	3-5-8	4-5.5-8.5	4-6-9	5-7-9.5
48" x 24" or 1200 mm x 600 mm	Total Pressure, Pt	0.09	0.12	0.15	0.18	0.21	0.25	0.29	0.33	0.37	0.42	0.47
	Static Pressure, Ps	0.09	0.11	0.14	0.17	0.20	0.23	0.27	0.31	0.35	0.40	0.44
	NC	—	15	18	19	22	25	27	29	31	33	35
	Throw, T	1-1-3	1-2-4	1-2-5	1.5-2.5-5	2-3-6	2-4-6.5	2-4.5-7	3-5-7	3-5-8	4-6-8.5	5-7-9
60" x 24" or 1500 mm x 600 mm	Total Pressure, Pt	0.06	0.08	0.10	0.12	0.14	0.17	0.19	0.22	0.25	0.29	0.32
	Static Pressure, Ps	0.06	0.07	0.09	0.11	0.13	0.15	0.18	0.20	0.23	0.26	0.29
	NC	—	—	17	19	22	24	27	29	31	33	35
	Throw, T	1-1-3	1-2-4	1-2-5	1.5-2.5-5	2-3-6	2-4-6.5	2-4.5-7	3-5-7	3-5-8	4-6-8.5	5-7-9

12" (305 mm) dia. Inlet

Module Size	Airflow, CFM	230	260	290	315	345	375	400	430	460	490	520
48" x 24" or 1200 mm x 600 mm	Total Pressure, Pt	0.18	0.23	0.29	0.34	0.41	0.49	0.55	0.64	0.73	0.83	0.93
	Static Pressure, Ps	0.18	0.23	0.28	0.33	0.40	0.47	0.54	0.62	0.71	0.80	0.91
	NC	15	18	20	22	23	25	26	28	30	32	33
	Throw, T	1-2-6	1.5-3-6.5	2-4-7	3-5-8	4-5.5-8	4.5-6-8.5	5-7-9.5	5.5-7.5-10	6-8-11	6.5-8.5-11.5	7-9-12
60" x 24" or 1500 mm x 600 mm	Total Pressure, Pt	0.12	0.15	0.19	0.22	0.27	0.32	0.36	0.41	0.47	0.54	0.61
	Static Pressure, Ps	0.11	0.14	0.18	0.21	0.25	0.30	0.34	0.39	0.45	0.51	0.58
	NC	15	18	20	22	23	25	26	28	30	32	33
	Throw, T	1-2-6	2-3-6	2-4-7	3-5-8	4-5.5-7.5	4.5-6-8.5	5-6.5-9	5.5-7.5-9.5	6-8-10.5	6-8.5-11	6.5-8.5-11.5

CFM - cubic feet per minute

FPM - feet per minute velocity

Pt - total pressure - inches w.g.

Ps - static pressure - inches w.g.

T - throw in feet

NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. Throws are the average vertical distance in feet to terminal velocities of 100, 75 and 50 fpm. Based upon a cooling ΔT of 10°F. 9 ft. ceiling.

2. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).

3* Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter face area. Exceeding these airflows may result in reduced filter efficiencies. Refer to the engineering section for more details.

4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

Performance Data

Model 92LFDF-AL, 92LFDF-SS

With ULPA Filter • 99.9995% Minimum Removal Efficiency on 0.12 Micrometer Particle Size

Metric Units

8" (203 mm) dia. Inlet

Module Size	Airflow, L/S	47	57	66	76	85	94	104	113	123	132	137
1219 mm x 305 mm* or 1200 mm x 300 mm	Total Pressure, Pt	50	72	97	127	162	199	239	286	336	388	418
	Static Pressure, Ps	47	70	94	124	157	194	234	278	326	378	405
	NC	—	17	19	22	25	27	29	31	34	35	37
	Throw, T	0.2-0.3-0.6	0.2-0.3-0.9	0.3-0.5-1.2	0.5-0.6-1.2	0.5-0.8-1.5	0.6-1.1-1.5	0.8-1.2-1.8	0.9-1.4-2.1	0.9-1.4-2.3	1.2-1.7-2.4	1.4-1.8-2.7
1524 mm x 305 mm or 1500 mm x 300 mm	Total Pressure, Pt	32	45	62	82	104	127	154	184	216	251	268
	Static Pressure, Ps	30	45	60	77	99	122	149	177	206	239	256
	NC	—	16	18	21	24	25	28	30	33	34	36
	Throw, T	0.2-0.3-0.6	0.3-0.3-0.9	0.3-0.5-1.2	0.3-0.6-1.2	0.3-0.8-1.4	0.6-1.1-1.5	0.6-1.2-1.7	0.9-1.2-2.0	0.9-1.5-2.1	1.2-1.5-2.4	1.2-1.8-2.6

Module Size	Airflow, L/S	47	57	66	76	85	94	104	113	123	132	139
610 mm x 610 mm* or 600 mm x 600 mm	Total Pressure, Pt	47	70	94	124	157	194	234	278	326	378	420
	Static Pressure, Ps	47	67	92	119	152	186	226	271	318	368	408
	NC	—	17	19	22	25	27	29	31	34	35	37
	Throw, T	0.2-0.3-0.6	0.2-0.3-0.9	0.3-0.5-1.2	0.5-0.6-1.2	0.5-0.8-1.5	0.6-1.1-1.8	0.8-1.2-1.8	0.9-1.4-2.1	0.9-1.4-2.3	1.2-1.7-2.4	1.4-1.8-2.7
914 mm x 610 mm or 900 mm x 600 mm	Total Pressure, Pt	20	30	40	52	65	80	97	117	137	159	177
	Static Pressure, Ps	20	27	37	47	62	75	92	109	127	147	164
	NC	—	15	18	21	24	26	28	30	33	34	36
	Throw, T	0-0.3-0.5	0-0.3-0.6	0-0.3-0.9	0.3-0.6-1.1	0.3-0.6-1.4	0.6-0.9-1.5	0.6-0.9-1.7	0.6-1.1-1.8	0.8-1.4-2.1	0.9-1.5-2.4	0.9-1.5-2.4
1219 mm x 610 mm or 1200 mm x 600 mm	Total Pressure, Pt	12	17	25	32	42	50	62	72	85	99	109
	Static Pressure, Ps	12	17	22	30	37	45	55	65	77	89	99
	NC	—	—	17	20	23	25	27	30	32	33	35
	Throw, T	0-0.2-0.5	0.2-0.3-0.6	0.2-0.3-0.8	0.3-0.5-0.9	0.3-0.6-1.2	0.3-0.6-1.5	0.5-0.8-1.5	0.6-0.9-1.8	0.6-1.2-2.0	0.6-1.4-2.1	0.9-1.5-2.1

10" (254 mm) dia. Inlet

Module Size	Airflow, L/S	76	85	94	104	113	123	132	142	151	160	170
914 mm x 610 mm or 900 mm x 600 mm	Total Pressure, Pt	42	52	65	77	92	109	127	144	164	186	209
	Static Pressure, Ps	40	50	62	75	89	104	122	139	159	179	201
	NC	15	18	20	21	23	26	28	30	32	34	36
	Throw, T	0.3-0.6-1.1	0.3-0.6-1.4	0.6-0.9-1.5	0.6-0.9-1.7	0.6-1.1-1.8	0.8-1.2-2.1	0.9-1.5-2.4	0.9-1.5-2.4	1.2-1.7-2.6	1.2-1.8-2.7	1.5-2.1-2.9
1219 mm x 610 mm or 1200 mm x 600 mm	Total Pressure, Pt	22	30	37	45	52	62	72	82	92	104	117
	Static Pressure, Ps	22	27	35	42	50	57	67	77	87	99	109
	NC	—	15	18	19	22	25	27	29	31	33	35
	Throw, T	0.3-0.3-0.9	0.3-0.6-1.2	0.3-0.6-1.5	0.5-0.8-1.5	0.6-0.9-1.8	0.6-1.2-2.0	0.6-1.4-2.1	0.9-1.5-2.1	0.9-1.5-2.4	1.2-1.8-2.6	1.5-2.1-2.7
1524 mm x 610 mm or 1500 mm x 600 mm	Total Pressure, Pt	15	20	25	30	35	42	47	55	62	72	80
	Static Pressure, Ps	15	17	22	27	32	37	45	50	57	65	72
	NC	—	—	17	19	22	24	27	29	31	33	35
	Throw, T	0.3-0.3-0.9	0.3-0.6-1.2	0.3-0.6-1.5	0.5-0.8-1.5	0.6-0.9-1.8	0.6-1.2-2.0	0.6-1.4-2.1	0.9-1.5-2.1	0.9-1.5-2.4	1.2-1.8-2.6	1.5-2.1-2.7

12" (305 mm) dia. Inlet

Module Size	Airflow, L/S	109	123	137	149	163	177	189	203	217	231	245
1219 mm x 610 mm or 1200 mm x 600 mm	Total Pressure, Pt	45	57	72	85	102	122	137	159	181	206	231
	Static Pressure, Ps	45	57	70	82	99	117	134	154	177	199	226
	NC	15	18	20	22	23	25	26	28	30	32	33
	Throw, T	0.3-0.6-1.8	0.5-0.9-2.0	0.6-1.2-2.1	0.9-1.5-2.4	1.2-1.7-2.4	1.4-1.8-2.6	1.5-2.1-2.9	1.7-2.3-3.0	1.8-2.4-3.4	2.0-2.6-3.5	2.1-2.7-3.7
1524 mm x 610 mm or 1500 mm x 600 mm	Total Pressure, Pt	30	37	47	55	67	80	89	102	117	134	152
	Static Pressure, Ps	27	35	45	52	62	75	85	97	112	127	144
	NC	15	18	20	22	23	25	26	28	30	32	33
	Throw, T	0.3-0.6-1.8	0.6-0.9-1.8	0.6-1.2-2.1	0.9-1.5-2.4	1.2-1.7-2.3	1.4-1.8-2.6	1.5-2.0-2.7	1.7-2.3-2.9	1.8-2.4-3.2	1.8-2.6-3.4	2.0-2.6-3.5

L/S - litres per second

M/S - meters per second velocity

Pt - total pressure - Pa

Ps - static pressure - Pa

T - throw in meters

NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. Throws are the average vertical distance in meters to terminal velocities of 0.51, 0.38 and 0.25 m/s. Based upon a cooling ΔT of 5.5°C. 2.7 m ceiling.
2. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).
3. * Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter face area. Exceeding these airflows may result in reduced filter efficiencies. Refer to the engineering section for more details.
4. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.