RADIAL PATTERN DIFFUSERS WITH FILTERS

Nailor

Performance Data

Model 92RPDF-1SS • 90° Pattern

With HEPA Filter • 99.99% Minimum Removal Efficiency on 0.30 Micrometer Particle Size Imperial Units

24" x 24" or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ∆T – 10°F (5.5°C)

Airflow Pt Ps		NC	T Horizontal Throw @			T Vertical Throw @			
CFM	г	гэ	NC	100 75 FPM FPM	50 FPM	100 FPM	75 FPM	50 FPM	
100	.14	.14	-	0.5	1.0	1.5	1.0	1.5	2.5
150	.32	.31	-	1.0	1.5	2.0	2.0	2.5	3.5
200*	.57	.55	16	1.5	2.0	2.5	2.5	3.5	4.0
250	.89	.86	19	2.0	2.5	3.0	3.0	3.5	4.5
295**	1.24	1.19	22	2.0	2.5	3.5	3.5	4.0	5.0

48" x 24" or 1200 mm x 600 mm Module Size	• 12" (305 mm) dia. Inlet • ∆T – 10°F (5.5°C)
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Airflow	Pt Ps		Ps NC		lorizon hrow @		T Vertical Throw @		
CFM	г	гъ	NC	100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
300	.23	.22	-	0.5	1.0	1.5	1.5	2.0	2.5
400	.40	.39	-	1.0	1.5	2.0	2.0	3.0	4.0
500*	.63	.60	19	1.0	2.0	3.0	2.5	3.5	5.0
600	.91	.87	23	1.5	2.5	3.5	3.0	4.0	6.0
715**	1.29	1.23	28	2.0	3.0	4.0	3.5	4.5	6.5

	48" x 12" or 1200 mm x 300 mm Module Size • 8"	(203 mm) dia. Inlet • $\Delta T - 10^{\circ}F$ (5.5	°C)
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Airflow	Pt Ps		NC		lorizon hrow @		T Vertical Throw @		
CFM	г	ГЭ	NC	100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
100	.14	.14	_	0.5	0.5	1.0	0.5	0.5	1.0
150	.33	.31	-	0.5	1.0	1.5	0.5	1.0	1.5
200*	.58	.56	17	1.0	1.5	2.0	0.5	1.0	1.5
250	.90	.87	20	1.0	1.5	2.5	1.0	1.5	2.0
290**	1.22	1.17	23	1.5	2.0	3.0	1.0	1.5	2.0

CFM - cubic feet per minute

FPM - feet per minute velocity

- Pt total pressure inches w.g.
- Ps static pressure inches w.g.

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

Performance Notes:

1. The radial flow pattern of the **92RPDF-1SS** is unlike conventional air distribution devices. The data presented above describes isovels by average terminal velocity in both horizontal and vertical directions.

2. ΔT is the temperature difference between supply and room air. Testing is based on 10°F (5.5°C) cooling.

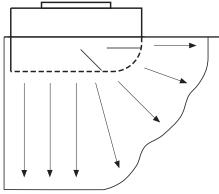
3. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).

4.* Recommended maximum airflow is based on 100 fpm (0.51 m/s) velocity per square foot of filter media face area.

****** Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter media face area. Exceeding these airflows may result in reduced filter efficiencies.

Refer to the engineering section for more details.

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



Typical 75 fpm Isovel

T - throw in feet

RADIAL PATTERN DIFFUSERS WITH FILTERS

Performance Data

Model 92RPDF-1SS • 90° Pattern

With HEPA Filter • 99.99% Minimum Removal Efficiency on 0.30 Micrometer Particle Size Metric Units

610 mm x 610 mm or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ∆T – 10°F (5.5°C)

Airflow L/S Pt	Pt Ps	Ps NC		lorizon hrow @		T Vertical Throw @			
	г	гэ	NC	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
47	35	35	-	0.2	0.3	0.5	0.3	0.5	0.8
71	80	77	-	0.3	0.5	0.6	0.6	0.8	1.1
94 *	142	137	16	0.5	0.6	0.8	0.8	1.1	1.2
118	221	214	19	0.6	0.8	0.9	0.9	1.1	1.4
139**	308	296	22	0.6	0.8	1.1	1.1	1.2	1.5

1219 mm x 610 mm or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet • $\Delta T - 10^{\circ}F$ (5.5°C)

Airflow L/S	Pt Ps		Ps NC		T Horizontal Throw @			T Vertical Throw @		
	Г	ГЭ	NC	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S 0.6 0.9	0.25 M/S	
142	57	55	_	0.2	0.3	0.5	0.5	0.6	0.8	
189	99	97	-	0.3	0.5	0.6	0.6	0.9	1.2	
236*	157	149	19	0.3	0.6	0.9	0.8	1.1	1.5	
283	226	216	23	0.5	0.8	1.1	0.9	1.2	1.8	
337**	321	306	28	0.6	0.9	1.2	1.1	1.4	2.0	

1219 mm x 305 mm or 1200 x 300 mm Module Size • 8" (203 mm) dia. Inlet • $\Delta T - 10^{\circ}F$ (5.5°C)

Airflow	Pt	Ps	NC		lorizon hrow @		T Vertical Throw @		
L/S	г	ГЭ	NC	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
47	35	35	_	0.2	0.2	0.3	0.2	0.2	0.3
71	82	77	-	0.2	0.3	0.5	0.2	0.3	0.5
94 *	144	139	17	0.3	0.5	0.6	0.2	0.3	0.5
118	224	216	20	0.3	0.5	0.8	0.3	0.5	0.6
137 **	303	291	23	0.5	0.6	0.9	0.3	0.5	0.6

- 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. The radial flow pattern of the **92RPDF-1SS** is unlike conventional air distribution devices. The data presented above describes isovels by average terminal velocity in both horizontal and vertical directions.

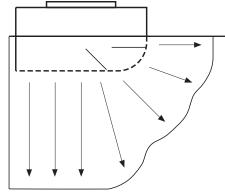
2. ΔT is the temperature difference between supply and room air. Testing is based on 10°F (5.5°C) cooling.

 Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).
*Recommended maximum airflow is based on 100 fpm (0.51 m/s) velocity per square foot of filter media face area.

****** Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter media face area. Exceeding these airflows may result in reduced filter efficiencies.

Refer to the engineering section for more details.

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



Typical 0.38 m/s Isovel