

FLUSH FACE RADIAL PATTERN DIFFUSERS

- FLUSH FACE DESIGN
- HIGH CAPACITY
- REMOVABLE FACE

Aluminum Models:

92FRP-2AL 180° Pattern

92FRP-1AL 90° Pattern

Steel Models:

92FRP-2 180° Pattern

92FRP-1 90° Pattern



Model 92FRP-2

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HOSPITAL / CLEANROOM DIFFUSERS

The **Model Series 92FRP Flush Face Radial Pattern Diffusers** have been designed to provide low aspiration at high ventilation rates especially for cleanroom applications such as research laboratories, bio-technology facilities, animal labs, food processing, semi-conductor manufacturing, hospital rooms and computer rooms. Specially designed internal baffles and pressure plate produce an excellent radial air pattern that allows large volumes of air to be supplied at low velocities. The unobtrusive flush face design provides the smooth appearance required for architectural excellence.

The **92FRP-2AL** and **92FRP-2** models introduce air in a semi-cylindrical 180° radial flow pattern, flushing a room with large volumes of clean conditioned air, minimizing entrainment and hence mixing with contaminated air, while still allowing low room air velocities. The **92FRP-1AL** and **92FRP-1** models introduce air in a 90° radial flow pattern for perimeter applications.

FEATURES:

- Unique, architecturally appealing flush face design.
- Face plate is removable for cleaning and is secured by 1/4 turn fasteners.
- Safety cables are included as standard and prevent accidental dropping of removable face.
- Perforated face has 3/16" (5) dia. holes on 1/4" (6) staggered centers (51% free area).
- Round inlets for simple duct connection.
- Standard unit designed for both Lay-in T-Bar ceiling systems and surface mount applications.

Material: Extruded aluminum frame. Aluminum or corrosion-resistant steel backpan and controllers depending on model selection.

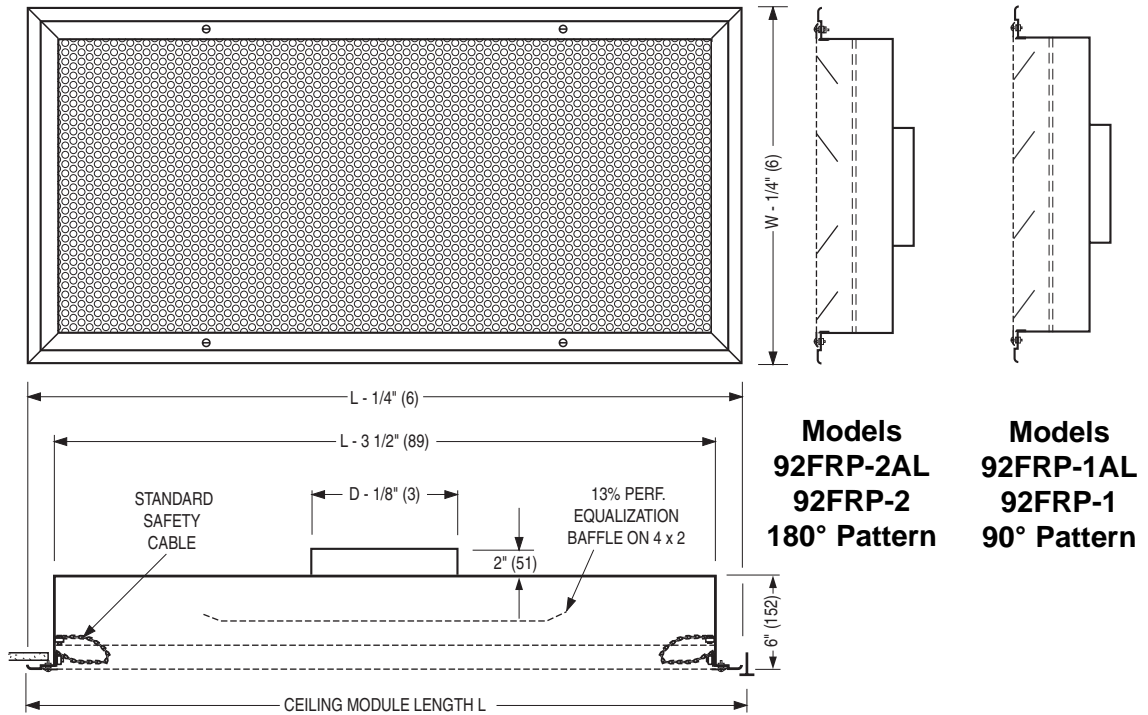
Finish: AW Appliance White baked enamel finish is standard. Other finishes are available.

Options:

- SSF Stainless Steel Face available on aluminum models.
- This product is also available in stainless steel construction for more demanding applications.

Dimensional Data

Models 92FRP-2AL, 92FRP-1AL, 92FRP-2, 92FRP-1 • Flush Face Radial Pattern Diffusers



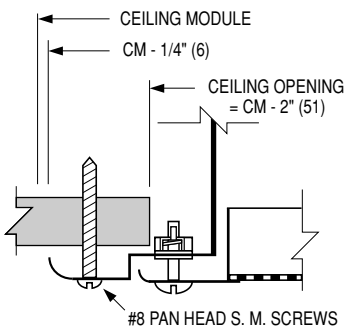
Models
92FRP-2AL
92FRP-2
180° Pattern

Models
92FRP-1AL
92FRP-1
90° Pattern

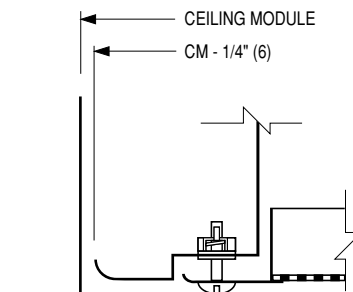
Ceiling Module Sizes L x W & Nominal Round Duct Sizes D

L x W	Imperial Modules (inches)		24 x 24	48 x 24
	Metric Modules (mm)		600 x 600	1200 x 600
Duct Size D	(inches)		8, 10	10, 12
	(mm)		203, 254	254, 305

Type S Surface Mount Detail



Type L Lay-in T-Bar Detail



HOW TO SPECIFY OR TO ORDER

(Show complete Model Number and Size, unless "Default" is desired).

Steel and Aluminum Flush Face Radial Pattern Diffusers – Model Series 92FRP

92FRP-2AL - 10 - 48 x 24 - L - AW - —

MODEL

- 180° Pattern	92FRP-2AL	Aluminum
- 90° Pattern	92FRP-1AL	Aluminum
- 180° Pattern	92FRP-2	Steel
- 90° Pattern	92FRP-1	Steel

ROUND INLET SIZE

(inches)	(mm)
08	(203)
10	(254)
12	(305)

CEILING MODULE SIZE

Imperial Modules

(inches)	(mm)
- 24 x 24	(610 x 610)
- 48 x 24	(1219 x 610)

Metric Modules (mm)

- 600 x 600
- 1200 x 600

Note:

1. Consult dimensional data as to limitations of model, module and neck size combinations.

OPTIONS

- None (default) —
- Type 304 Stainless Steel Perforated Face (Aluminum models only) SSF

FINISH

- Appliance White (default) AW
- Aluminum AL
- Special Custom Color SP
- Acrylic Appliance White AAW
- Acrylic Custom Color ASP

FRAME TYPE

- Lay-in T-Bar L
- Surface Mount S

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HOSPITAL / CLEANROOM DIFFUSERS

SUGGESTED SPECIFICATION:

Models 92FRP-2AL, 92FRP-1AL – Aluminum Construction

Furnish and install **Nailor Model** (select one) **92FRP-2AL** (180° pattern) or **92FRP-1AL** (90° pattern) **Aluminum Flush Face Radial Pattern Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffusers shall have an extruded aluminum frame with an aluminum perforated face that has 51% free area with 3/16" (5) dia. holes on 1/4" (6) staggered centers. Aluminum integral distribution baffles and pressure plate shall be attached to the flush face to provide a low velocity, non-aspirating radial air pattern. The face shall be attached to the plenum with 1/4 turn fasteners to allow for complete removal and access to the interior for cleaning. All diffusers are to include safety cables to prevent accidental dropping of the removable face. The backpan shall be constructed from aluminum. The finish shall be AW Appliance White baked enamel (optional finishes are available).

The manufacturer shall provide published performance data for the diffuser, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 1991.

Models 92FRP-2, 92FRP-1 – Steel Construction

Furnish and install **Nailor Model** (select one) **92FRP-2** (180° pattern) or **92FRP-1** (90° pattern) **Steel Flush Face Radial Pattern Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffusers shall have an extruded aluminum frame with a corrosion-resistant steel perforated face that has 51% free area with 3/16" (5) dia. holes on 1/4" (6) staggered centers. Corrosion-resistant steel integral distribution baffles and pressure plate shall be attached to the flush face to provide a low velocity, non-aspirating radial air pattern. The face shall be attached to the plenum with 1/4 turn fasteners to allow for complete removal and access to the interior for cleaning. All diffusers are to include safety cables to prevent accidental dropping of the removable face. The backpan shall be constructed from corrosion-resistant steel. The finish shall be AW Appliance White baked enamel (optional finishes are available).

The manufacturer shall provide published performance data for the diffuser, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 1991.

Performance Data

Model Series 92FRP • Aluminum and Steel • Flush Face Radial Pattern

Models 92FRP-2AL and 92FRP-2 • 180° 2-Way Pattern

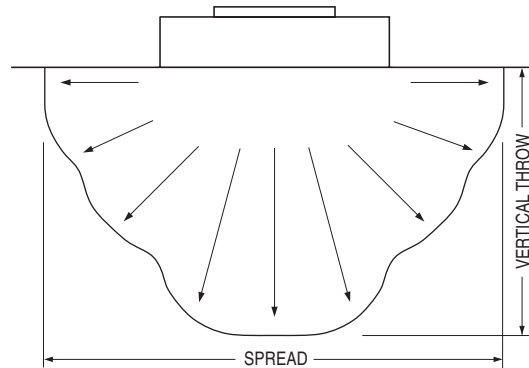
Module Size and Inlet Size	Airflow cfm	Pt "w.g.	Ps "w.g.	NC	Spread (ft)	Vertical Throw (ft)		
						5°ΔT	10°ΔT	15°ΔT
						100-75-50	100-75-50	100-75-50
24" x 24" 8" Inlet	250	.065	.033	24	1 3 5	1 2 5	1 2 5	1 3 5
	300	.086	.040	28	2 4 6	1 3 5	1 3 5	1 3 5
	400	.152	.070	36	3 4 7	2 3 5	2 4 5	3 4 7
	500	.223	.095	42	4 6 8	3 4 5	4 5 6	4 6 7
24" x 24" 10" Inlet	250	.028	.015	<20	1 2 3	0 1 2	1 1 2	1 1 2
	300	.037	.019	<20	1 2 4	1 1 2	1 2 3	1 2 3
	475	.085	.038	26	3 4 7	1 2 5	1 3 6	2 4 7
	600	.129	.054	38	4 6 8	3 4 7	3 5 8	4 6 9
24" x 48" 10" Inlet	400	.062	.028	<20	3 5 6	0 1 1	0 1 1	1 2 2
	500	.100	.048	24	5 7 9	1 2 3	1 2 4	1 2 4
	700	.193	.090	41	5 7 10	2 2 5	2 3 6	2 5 7
	900	.324	.155	49	7 9 11	2 5 7	3 6 8	3 6 8
24" x 48" 12" Inlet	500	.054	.029	<20	1 2 4	1 1 2	1 2 2	1 2 4
	650	.093	.050	26	2 4 7	1 2 4	1 2 4	2 4 6
	750	.150	.085	31	3 5 8	1 3 5	2 3 5	2 4 6
	1000	.226	.125	46	4 8 11	2 3 6	3 6 8	4 6 8

Models 92FRP-1AL and 92FRP-1 • 90° 1-Way Pattern

Module Size and Inlet Size	Airflow cfm	Pt "w.g.	Ps "w.g.	NC	Spread (ft)	Vertical Throw (ft)		
						5°ΔT	10°ΔT	15°ΔT
						100-75-50	100-75-50	100-75-50
24" x 24" 8" Inlet	250	.064	.032	<20	1 1 3	0 0 1	0 1 2	1 1 3
	300	.084	.380	28	1 2 4	0 1 1	1 2 3	1 3 5
	400	.150	.068	35	2 3 4	1 1 2	2 3 5	2 5 9
	500	.218	.090	40	3 3 4	1 1 3	2 4 9	4 6 9
24" x 24" 10" Inlet	250	.028	.015	<20	1 2 3	1 1 2	1 2 3	2 3 6
	300	.044	.018	22	1 2 4	1 2 5	2 4 7	3 6 9
	475	.084	.037	27	3 3 5	2 4 5	3 6 7	6 7 9
	600	.127	.052	38	3 4 5	2 5 7	4 6 8	7 8 9
24" x 48" 10" Inlet	400	.058	.024	<20	1 2 3	1 3 4	1 3 4	3 5 8
	500	.095	.043	24	2 3 4	2 4 5	2 4 6	4 7 9
	700	.178	.075	40	2 3 4	2 4 5	3 5 7	6 8 9
	900	.314	.145	48	3 5 7	3 5 7	4 6 8	8 8 9
24" x 48" 12" Inlet	500	.050	.025	<20	1 1 3	2 5 7	3 5 7	4 6 7
	650	.088	.045	26	2 3 5	3 6 8	4 6 8	5 7 9
	750	.145	.080	32	3 4 5	4 6 9	5 7 9	6 7 9
	1000	.221	.120	44	2 5 7	7 9 9	8 9 9	8 9 9

Performance Notes:

1. Throw and Spread values are given for terminal velocities of 100, 75 and 50 fpm.
2. Spread is the maximum width of the isovel at the indicated terminal velocity.
3. Vertical throw is the furthest distance below the ceiling where the indicated terminal velocity can be measured.
4. ΔT is the cooling temperature differential between supply and room air.
5. NC (Noise Criteria) values based on 10dB room absorption, re 10⁻¹² watts.
6. Data derived from tests were conducted in accordance with ANSI /ASHRAE Std 70-1991.



Typical 75 fpm Isovel for 180° Pattern

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HOSPITAL / CLEANROOM DIFFUSERS

FLUSH FACE RADIAL PATTERN DIFFUSERS

- FLUSH FACE DESIGN
- HIGH CAPACITY
- REMOVABLE FACE
- STAINLESS STEEL

Models:

92FRP-2SS 180° Pattern

92FRP-1SS 90° Pattern



Model 92FRP-2SS

The **Model 92FRP-SS Flush Face Radial Pattern Diffusers** have been designed to provide low aspiration at high ventilation rates especially for cleanroom applications such as research laboratories, bio-technology facilities, animal labs, food processing, semi-conductor manufacturing, hospital rooms and computer rooms. Specially designed internal baffles and pressure plate produce an excellent radial air pattern that allows large volumes of air to be supplied at low velocities. The unobtrusive flush face design provides the smooth appearance required for architectural excellence.

The **92FRP-2SS** model introduces air in a semi-cylindrical 180° radial flow pattern, flushing a room with large volumes of clean conditioned air, minimizing entrainment and hence mixing with contaminated air, while still allowing low room air velocities. The **92FRP-1SS** model introduces air in a 90° radial flow pattern for perimeter applications.

FEATURES:

- Unique, architecturally appealing flush face design.
- Face plate is removable for cleaning and is secured by 1/4 turn fasteners.
- Safety cables are included as standard and prevent accidental dropping of removable face.
- Perforated face has 3/16" (5) dia. holes on 1/4" (6) staggered centers (51% free area).
- Round inlets for simple duct connection.
- Standard unit designed for both Lay-in T-Bar ceiling systems and surface mount applications.
- Integral earthquake hanger tabs are standard.

Material: Type 304 Stainless Steel construction.

Finish: #3 Satin Polished finish is standard. Other finishes are available.

Options:

- 316 Stainless Steel construction.
- AW Appliance White finish.
- This product is also available in steel and aluminum construction for less demanding applications.

HOW TO SPECIFY OR TO ORDER

(Show complete Model Number and Size, unless "Default" is desired).

Stainless Steel Flush Face Radial Pattern Diffusers – Model Series 92FRP

92FRP-2SS - 08 - 24 x 24 - L - #3 - —

MODEL

- 180° Pattern 92FRP-2SS
- 90° Pattern 92FRP-1SS

ROUND INLET SIZE

(inches)	(mm)
06	(152)
07	(178)
08	(203)
10	(254)
12	(305)

CEILING MODULE SIZE

Imperial Modules

(inches)	(mm)
- 24 x 24	(610 x 610)
- 36 x 24	(914 x 610)
- 48 x 24	(1219 x 610)
- 60 x 24	(1524 x 610)

Metric Modules (mm)

- 600 x 600
- 900 x 600
- 1200 x 600
- 1500 x 600

OPTIONS

- None (default) —
- 316 Stainless Steel construction 316

FINISH

- #3 Satin Polished (default) #3
- Appliance White AW
- Special Custom Color SP

FRAME TYPE

- Lay-in T-Bar L
- Surface Mount S

HOSPITAL / CLEANROOM DIFFUSERS

Note:

1. Consult dimensional data as to limitations of model, module and neck size combinations.

SUGGESTED SPECIFICATION:

Furnish and install **Nailor Model 92FRP-SS Flush Face Radial Pattern Ceiling Diffusers** of the sizes and types shown on the plans and air distribution schedules. The diffusers shall be constructed entirely from 304 stainless steel (316 optional), minimum 24 gauge. The perforated face of the diffuser shall have 51% free area with 3/16" (5) dia. holes on 1/4" (6) staggered centers. Integral distribution baffles and pressure plate shall be attached to the face to provide a low velocity, non-aspirating radial air pattern. The face shall be attached with 1/4 turn fasteners to allow for complete removal and access to the interior for cleaning. All diffusers are to include safety cables to prevent accidental dropping of the removable face. Integral earthquake hanger tabs shall be included with all units. All exposed surfaces shall have a #3 satin polished finish.

The manufacturer shall provide published performance data for the diffuser, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 1991.

Performance Data

Model 92FRP-2SS • 180° Pattern

Imperial Units

24" x 24" or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet

Airflow CFM	Pt	Ps	NC	T Spread			T Vertical Throw @ 5°F ΔT			T Vertical Throw @ 10°F ΔT			T Vertical Throw @ 15°F ΔT		
				100	75	50	100	75	50	100	75	50	100	75	50
				FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM
200	.058	.037	20	1	2	4	1	1	1	1	1	2	1	1	2
300	.131	.082	29	2	3	6	1	2	2	1	2	3	1	2	3
400	.233	.146	36	3	5	7	1	3	4	2	3	4	2	4	5
500	.365	.228	43	4	6	8	2	3	6	2	4	6	3	5	7
600	.525	.329	50	4	7	9	3	4	7	3	5	8	3	7	9

24" x 24" or 600 mm x 600 mm Module Size • 10" (254 mm) dia. Inlet

Airflow CFM	Pt	Ps	NC	T Spread			T Vertical Throw @ 5°F ΔT			T Vertical Throw @ 10°F ΔT			T Vertical Throw @ 15°F ΔT		
				100	75	50	100	75	50	100	75	50	100	75	50
				FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM
200	.026	.017	20	1	1	2	1	1	1	1	1	2	1	1	2
300	.058	.039	20	1	2	4	1	2	2	1	2	3	1	2	4
400	.104	.068	24	2	3	6	1	3	5	2	3	5	2	4	6
500	.162	.107	29	3	5	8	2	4	6	2	4	7	3	5	8
600	.233	.154	38	4	6	9	3	5	8	3	6	9	4	7	10

48" x 24" or 1200 mm x 600 mm Module Size • 10" (254 mm) dia. Inlet

Airflow CFM	Pt	Ps	NC	T Spread			T Vertical Throw @ 5°F ΔT			T Vertical Throw @ 10°F ΔT			T Vertical Throw @ 15°F ΔT		
				100	75	50	100	75	50	100	75	50	100	75	50
				FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM
400	.099	.064	20	3	4	7	1	1	2	1	2	2	1	2	3
500	.155	.100	24	4	5	8	1	2	3	1	2	3	1	3	4
600	.223	.144	30	5	6	9	1	2	4	1	2	5	2	4	6
700	.304	.196	38	5	7	9	2	2	5	2	3	6	2	4	6
800	.397	.256	45	6	8	10	2	3	5	2	4	7	3	5	7
900	.502	.324	51	6	9	11	2	4	6	3	5	8	4	6	8

48" x 24" or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet

Airflow CFM	Pt	Ps	NC	T Spread			T Vertical Throw @ 5°F ΔT			T Vertical Throw @ 10°F ΔT			T Vertical Throw @ 15°F ΔT		
				100	75	50	100	75	50	100	75	50	100	75	50
				FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM
500	.083	.057	20	2	3	4	1	2	3	1	2	4	2	3	5
600	.119	.082	24	2	3	6	1	2	4	1	2	5	2	3	6
700	.163	.111	29	3	4	8	1	2	5	2	3	6	2	4	7
800	.212	.145	34	3	5	9	2	3	5	2	4	7	3	5	8
900	.269	.183	40	4	6	10	2	4	6	3	5	8	4	6	9
1000	.332	.226	46	4	8	11	3	5	7	4	6	9	4	7	10

CFM - cubic feet per minute

FPM - feet per minute velocity

Pt - total pressure - inches w.g.

Ps - static pressure - inches w.g.

T - throw or spread in feet

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

Performance Notes:

1. The radial flow pattern of the 92FRP-2SS 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.

3. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.

Performance Data

Model 92FRP-2SS • 180° Pattern

Metric Units

610 mm x 610 mm or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet

Airflow L/S	Pt	Ps	NC	T Spread			T Vertical Throw @ 3°C ΔT			T Vertical Throw @ 5.5°C ΔT			T Vertical Throw @ 8.5°C ΔT		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
94	14	9	20	0.3	0.6	1.2	0.3	0.3	0.3	0.3	0.3	0.6	0.3	0.3	0.6
142	33	20	29	0.6	0.9	1.8	0.3	0.6	0.6	0.3	0.6	0.9	0.3	0.6	0.9
189	58	36	36	0.9	1.5	2.1	0.3	0.9	1.2	0.6	0.9	1.2	0.6	1.2	1.5
236	91	57	43	1.2	1.8	2.4	0.6	0.9	1.8	0.6	1.2	1.8	0.9	1.5	2.1
283	131	82	50	1.2	2.1	2.7	0.9	1.2	2.1	0.9	1.5	2.4	0.9	2.1	2.7

610 mm x 610 mm or 600 mm x 600 mm Module Size • 10" (254 mm) dia. Inlet

Airflow L/S	Pt	Ps	NC	T Spread			T Vertical Throw @ 3°C ΔT			T Vertical Throw @ 5.5°C ΔT			T Vertical Throw @ 8.5°C ΔT		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
94	6	4	<20	0.3	0.3	0.6	0.3	0.3	0.3	0.3	0.3	0.6	0.3	0.3	0.6
142	14	10	20	0.3	0.6	1.2	0.3	0.6	0.6	0.3	0.6	0.9	0.3	0.6	1.2
189	26	17	24	0.6	0.9	1.8	0.3	0.9	1.5	0.6	0.9	1.5	0.6	1.2	1.8
236	40	27	29	0.9	1.5	2.4	0.6	1.2	1.8	0.6	1.2	2.1	0.9	1.5	2.4
283	58	38	38	1.2	1.8	2.7	0.9	1.5	2.4	0.9	1.8	2.7	1.2	2.1	3.0

1219 mm x 610 mm or 1200 mm x 600 mm Module Size • 10" (254 mm) dia. Inlet

Airflow L/S	Pt	Ps	NC	T Spread			T Vertical Throw @ 3°C ΔT			T Vertical Throw @ 5.5°C ΔT			T Vertical Throw @ 8.5°C ΔT		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
189	25	16	20	0.9	1.2	2.1	0.3	0.3	0.6	0.3	0.6	0.6	0.3	0.6	0.9
236	39	25	24	1.2	1.5	2.4	0.3	0.6	0.9	0.3	0.6	0.9	0.3	0.9	1.2
283	55	36	30	1.5	1.8	2.7	0.3	0.6	1.2	0.3	0.6	1.5	0.6	1.2	1.8
330	76	49	38	1.5	2.1	2.7	0.6	0.6	1.5	0.6	0.9	1.8	0.6	1.2	1.8
378	99	64	45	1.8	2.4	3.0	0.6	0.9	1.5	0.6	1.2	2.1	0.9	1.5	2.1
425	125	81	51	1.8	2.7	3.4	0.6	1.2	1.8	0.9	1.5	2.4	1.2	1.8	2.4

1219 mm x 610 mm or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet

Airflow L/S	Pt	Ps	NC	T Spread			T Vertical Throw @ 3°C ΔT			T Vertical Throw @ 5.5°C ΔT			T Vertical Throw @ 8.5°C ΔT		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
236	21	14	20	0.6	0.9	1.2	0.3	0.6	0.9	0.3	0.6	1.2	0.6	0.9	1.5
283	30	20	24	0.6	0.9	1.8	0.3	0.6	1.2	0.3	0.6	1.5	0.6	0.9	1.8
330	41	28	29	0.9	1.2	2.4	0.3	0.6	1.5	0.6	0.9	1.8	0.6	1.2	2.1
378	53	36	34	0.9	1.5	2.7	0.6	0.9	1.5	0.6	1.2	2.1	0.9	1.5	2.4
425	67	45	40	1.2	1.8	3.0	0.6	1.2	1.8	0.9	1.5	2.4	1.2	1.8	2.7
472	83	56	46	1.2	2.4	3.4	0.9	1.5	2.1	1.2	1.8	2.7	1.2	2.1	3.0

L/S - litres per second

M/S - meters per second velocity

Pt - total pressure - Pa

Ps - static pressure - Pa

T - throw or spread 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 92FRP-2SS 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.

3. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.

Performance Data

Model 92FRP-1SS • 90° Pattern
Imperial Units

24" x 24" or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet

Airflow CFM	Pt	Ps	NC	T Spread			T Vertical Throw @ 5°F ΔT			T Vertical Throw @ 10°F ΔT			T Vertical Throw @ 15°F ΔT		
				100	75	50	100	75	50	100	75	50	100	75	50
				FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM
200	.054	.032	20	1	2	3	1	1	2	1	2	2	1	2	3
300	.121	.072	26	1	3	4	1	2	3	1	2	3	2	3	4
400	.215	.128	35	2	3	4	2	3	5	2	3	5	3	4	7
500	.336	.200	41	3	4	5	2	4	6	2	4	7	4	5	8
600	.484	.288	45	4	5	6	3	4	7	4	7	9	5	8	10

24" x 24" or 600 mm x 600 mm Module Size • 10" (254 mm) dia. Inlet

Airflow CFM	Pt	Ps	NC	T Spread			T Vertical Throw @ 5°F ΔT			T Vertical Throw @ 10°F ΔT			T Vertical Throw @ 15°F ΔT		
				100	75	50	100	75	50	100	75	50	100	75	50
				FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM
200	.025	.016	20	1	2	4	1	1	2	1	2	2	1	2	3
300	.056	.036	20	2	3	5	1	2	3	1	2	4	2	3	4
400	.099	.064	28	3	4	6	2	3	5	2	3	6	4	5	7
500	.155	.100	33	4	5	7	2	4	7	3	5	8	5	6	9
600	.223	.144	36	4	6	8	4	6	8	4	7	10	6	9	10

48" x 24" or 1200 mm x 600 mm Module Size • 10" (254 mm) dia. Inlet

Airflow CFM	Pt	Ps	NC	T Spread			T Vertical Throw @ 5°F ΔT			T Vertical Throw @ 10°F ΔT			T Vertical Throw @ 15°F ΔT		
				100	75	50	100	75	50	100	75	50	100	75	50
				FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM
400	.096	.061	24	1	2	3	2	4	6	3	4	6	4	5	7
500	.150	.095	28	1	2	3	3	4	6	3	5	7	4	6	8
600	.216	.136	33	2	2	4	3	5	7	5	6	7	5	6	8
700	.294	.186	37	2	3	4	4	5	7	5	6	8	6	7	9
800	.383	.242	41	3	4	5	4	6	8	6	7	8	6	8	9
900	.485	.307	46	3	4	6	5	6	8	6	7	9	7	8	10

48" x 24" or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet

Airflow CFM	Pt	Ps	NC	T Spread			T Vertical Throw @ 5°F ΔT			T Vertical Throw @ 10°F ΔT			T Vertical Throw @ 15°F ΔT		
				100	75	50	100	75	50	100	75	50	100	75	50
				FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM	FPM
500	.079	.053	20	1	2	3	3	4	7	4	5	7	4	6	8
600	.114	.076	23	2	3	4	4	5	7	5	6	8	5	7	9
700	.155	.103	27	3	3	5	4	6	8	6	7	9	6	8	9
800	.202	.135	31	3	4	5	5	7	8	6	8	9	7	9	10
900	.256	.171	37	3	4	6	6	7	9	7	9	10	8	9	10
1000	.316	.211	44	4	5	7	7	8	9	8	9	10	8	10	10

CFM - cubic feet per minute

FPM - feet per minute velocity

Pt - total pressure - inches w.g.

Ps - static pressure - inches w.g.

T - throw or spread in feet

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

Performance Notes:

1. The radial flow pattern of the 92FRP-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.

3. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.

Performance Data

Model 92FRP-1SS • 90° Pattern

Metric Units

610 mm x 610 mm or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet

Airflow L/S	Pt	Ps	NC	T Spread			T Vertical Throw @ 3°C ΔT			T Vertical Throw @ 5.5°C ΔT			T Vertical Throw @ 8.5°C ΔT		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
94	13	8	<20	0.3	0.6	0.9	0.3	0.3	0.6	0.3	0.6	0.6	0.3	0.6	0.9
142	30	18	26	0.3	0.9	1.2	0.3	0.6	0.9	0.3	0.6	0.9	0.6	0.9	1.2
189	53	32	35	0.6	0.9	1.2	0.6	0.9	1.5	0.6	0.9	1.5	0.9	1.2	2.1
236	84	50	41	0.9	1.2	1.5	0.6	1.2	1.8	0.6	1.2	2.1	1.2	1.5	2.4
283	120	72	45	1.2	1.5	1.8	0.9	1.2	2.1	1.2	2.1	2.7	1.5	2.4	3.0

610 mm x 610 mm or 600 mm x 600 mm Module Size • 10" (254 mm) dia. Inlet

Airflow L/S	Pt	Ps	NC	T Spread			T Vertical Throw @ 3°C ΔT			T Vertical Throw @ 5.5°C ΔT			T Vertical Throw @ 8.5°C ΔT		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
94	6	4	<20	0.3	0.6	1.2	0.3	0.3	0.6	0.3	0.6	0.6	0.3	0.6	0.9
142	14	9	20	0.6	0.9	1.5	0.3	0.6	0.9	0.3	0.6	1.2	0.6	0.9	1.2
189	25	16	28	0.9	1.2	1.8	0.6	0.9	1.5	0.6	0.9	1.8	1.2	1.5	2.1
236	39	25	33	1.2	1.5	2.1	0.6	1.2	2.1	0.9	1.5	2.4	1.5	1.8	2.7
283	55	36	36	1.2	1.8	2.4	1.2	1.8	2.4	1.2	2.1	3.0	1.8	2.7	3.0

1219 mm x 610 mm or 1200 mm x 600 mm Module Size • 10" (254 mm) dia. Inlet

Airflow L/S	Pt	Ps	NC	T Spread			T Vertical Throw @ 3°C ΔT			T Vertical Throw @ 5.5°C ΔT			T Vertical Throw @ 8.5°C ΔT		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
189	24	15	24	0.3	0.6	0.9	0.6	1.2	1.8	0.9	1.2	1.8	1.2	1.5	2.1
236	37	24	28	0.3	0.6	0.9	0.9	1.2	1.8	0.9	1.5	2.1	1.2	1.8	2.4
283	54	34	33	0.6	0.6	1.2	0.9	1.5	2.1	1.5	1.8	2.1	1.5	1.8	2.4
330	73	46	37	0.6	0.9	1.2	1.2	1.5	2.1	1.5	1.8	2.4	1.8	2.1	2.7
378	95	60	41	0.9	1.2	1.5	1.2	1.8	2.4	1.8	2.1	2.4	1.8	2.4	2.7
425	121	76	46	0.9	1.2	1.8	1.5	1.8	2.4	1.8	2.1	2.7	2.1	2.4	3.0

1219 mm x 610 mm or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet

Airflow L/S	Pt	Ps	NC	T Spread			T Vertical Throw @ 3°C ΔT			T Vertical Throw @ 5.5°C ΔT			T Vertical Throw @ 8.5°C ΔT		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
236	20	13	20	0.3	0.6	0.9	0.9	1.2	2.1	1.2	1.5	2.1	1.2	1.8	2.4
283	28	19	23	0.6	0.9	1.2	1.2	1.5	2.1	1.5	1.8	2.4	1.5	2.1	2.7
330	39	26	27	0.9	0.9	1.5	1.2	1.8	2.4	1.8	2.1	2.7	1.8	2.4	2.7
378	50	34	31	0.9	1.2	1.5	1.5	2.1	2.4	1.8	2.4	2.7	2.1	2.7	3.0
425	64	43	37	0.9	1.2	1.8	1.8	2.1	2.7	2.1	2.7	3.0	2.4	2.7	3.0
472	79	52	44	1.2	1.5	2.1	2.1	2.4	2.7	2.4	2.7	3.0	2.4	3.0	3.0

L/S - litres per second
M/S - meters per second velocity
Pt - total pressure - Pa
Ps - static pressure - Pa
T - throw or spread 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 92FRP-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.
 3. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.



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