

## PERFORATED CEILING DIFFUSERS

- SUPPLY
- 1, 2, 3 OR 4-WAY ADJUSTABLE DISCHARGE PATTERN

### Steel Models:

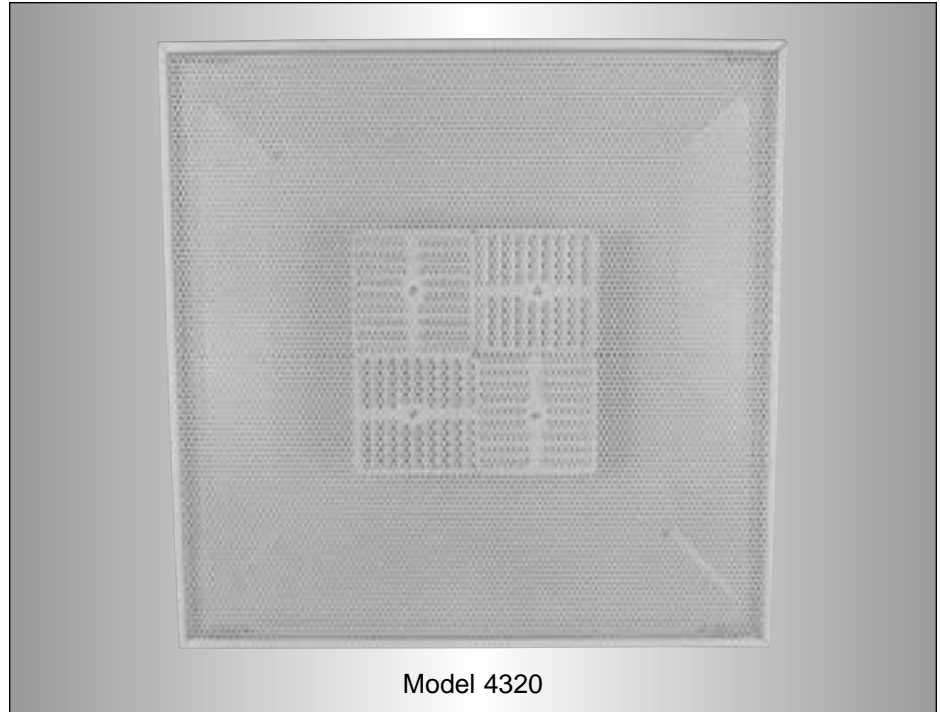
- 4320** Flush Face
- 4325** Drop Face

### Aluminum Face Models:

- 4320A** Flush Face
- 4325A** Drop Face

### Aluminum Models:

- 4320AA** Flush Face
- 4325AA** Drop Face



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CEILING DIFFUSERS

The **Nailor Perforated Ceiling Diffusers** have been designed to provide both the unobtrusive, smooth appearance preferred by many architects and the high engineering performance required for use in heating and cooling applications. They project a tight, uniform horizontal blanket of air over a wide range of air volumes and provide excellent performance in variable air volume systems.

The **4320 Series** features four individual stamped pattern controllers mounted on the rear of the diffuser face. They are easily field adjustable to suit the desired air pattern. **Model 4325** features a dropped (extended) face panel that is available to compliment tegular tile ceiling systems, so the panel remains flush with the ceiling line. In non-tegular ceilings the throw is reduced slightly and the airflow projection protects the ceiling against smudging.

### FEATURES:

- Round or square necks available.
- Hinged, removable face plate with quick-release spring latches.
- Discharge pattern can adjust to vertical or 1, 2, 3 or 4-way horizontal, before or after installation.
- Discharge pattern is adjusted by dropping the perforated face and rotating the pattern deflectors.
- Inlet collar has 1 1/4" (35) depth for easy duct connection.
- Dropping the perforated face gives access to the optional damper.
- Perforated face with 3/16" (5) diameter holes on staggered 1/4" (6) centers, providing 51% free area.
- Return models (**4360 Series**) have the same face and frame construction as the supply models to match the appearance.

**Material: Models 4320/4325** have a corrosion-resistant steel perforated face and backpan. **Models 4320A/4325A** have an aluminum perforated face and a corrosion-resistant steel backpan. **Models 4320AA/4325AA** have an aluminum perforated face and backpan.

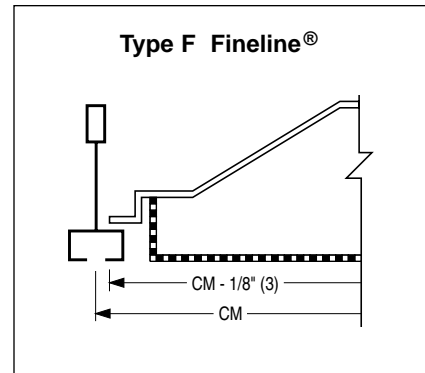
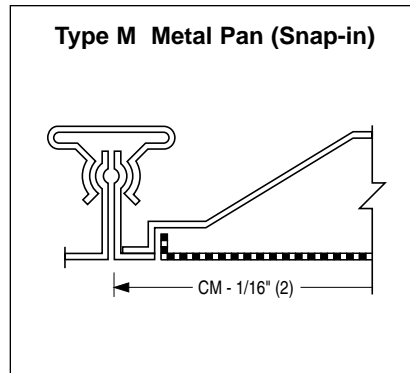
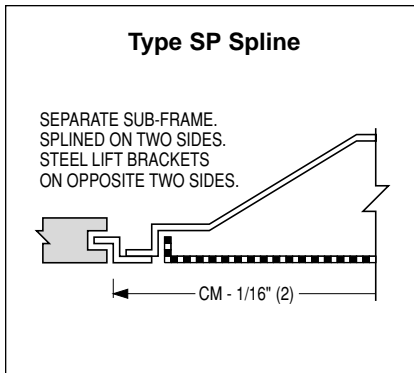
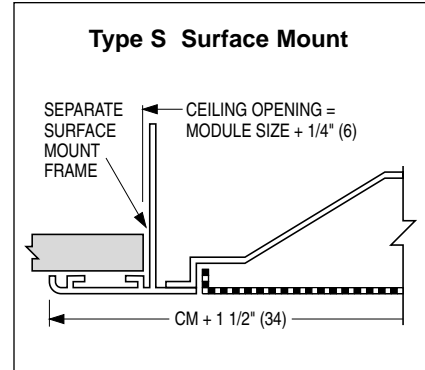
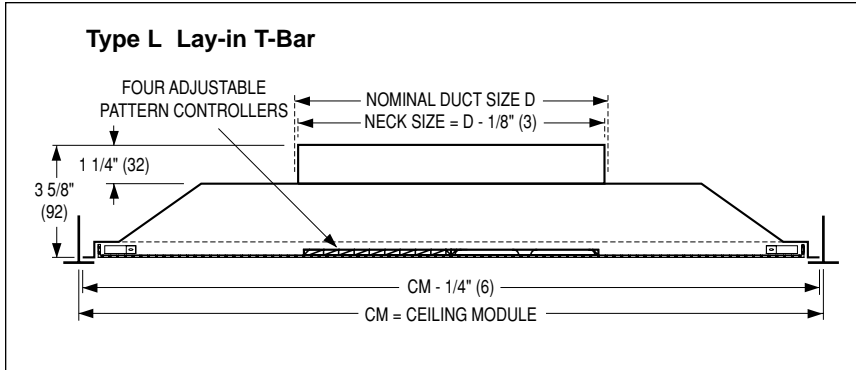
**Finish:** AW Appliance White baked enamel finish is standard. Other finishes are available.

### Available Combinations of Ceiling Module vs. Neck Size

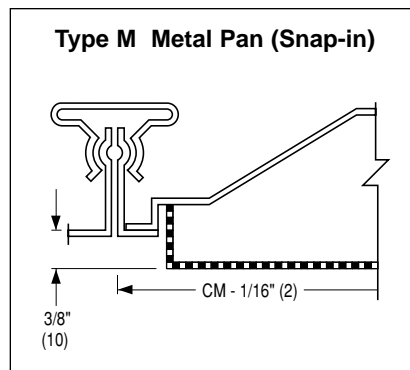
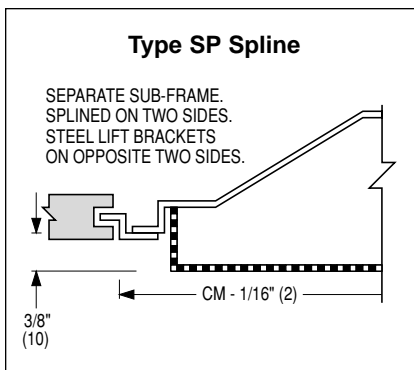
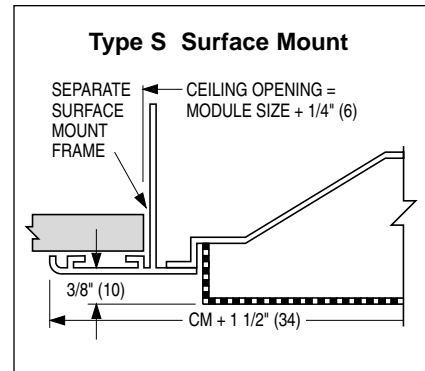
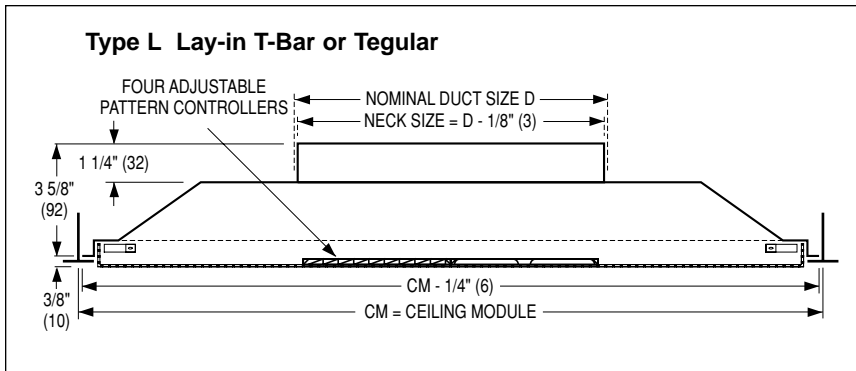
Ceiling Module CM		Nominal Duct Size D			
Imperial Modules	Metric Modules	Round Neck		Square Neck	
		Imperial Units (in.)	Metric Units (mm)	Imperial Units (in.)	Metric Units (mm)
12 x 12	300 x 300	6, 8	152, 203	6 x 6, 8 x 8	152 x 152, 203 x 203
16 x 16	400 x 400	6, 8, 10, 12 dia.	152, 203, 254, 305 dia.	6 x 6, 8 x 8, 10 x 10, 12 x 12	152 x 152, 203 x 203, 254 x 254, 305 x 305
24 x 12	600 x 300	6, 8 dia.	152, 203 dia.	6 x 6, 8 x 8, 18 x 6	152 x 152, 203 x 203, 457 x 152
20 x 20	500 x 500	6, 8, 10, 12, 14 dia.	152, 203, 254, 305, 356 dia.	6 x 6, 8 x 8, 10 x 10	152 x 152, 203 x 203, 254 x 254
24 x 24	600 x 600	6, 8, 10, 12, 14, 15, 16 dia.	152, 203, 254, 305, 356, 381, 406 dia.	6 x 6, 8 x 8, 10 x 10, 12 x 12, 14 x 14	152 x 152, 203 x 203, 254 x 254, 305 x 305, 356 x 356
48 x 24	1200 x 600				

## Dimensional Data and Frame Types

Models 4320, 4320A, 4320AA • Supply • Flush Face



Models 4325, 4325A, 4325AA • Supply • Drop Face



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CEILING DIFFUSERS

## HOW TO SPECIFY OR TO ORDER

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

### Perforated Supply Ceiling Diffusers – Model Series 4320

**4320 - 08 - 24 x 24 - L - AW - -**

#### MODEL

- Steel	Flush Face	4320
	Drop Face	4325
- Aluminum Face	Flush Face	4320A
	Drop Face	4325A
- Aluminum	Flush Face	4320AA
	Drop Face	4325AA

#### NECK SIZE (inches)

##### Round

06, 08, 10, 12, 14, 15, 16

##### Square/Rectangular

6 x 6, 8 x 8, 10 x 10, 12 x 12,  
14 x 14, 18 x 6

#### CEILING MODULE

##### Imperial (inches)    Metric (mm)

- 12 x 12	300 x 300
- 16 x 16	400 x 400
- 20 x 20	500 x 500
- 24 x 12	600 x 300
- 24 x 24	600 x 600
- 48 x 24	1200 x 600

#### ACCESSORIES

- None (default)	—
- External Foil Back Insulation	EX
- Earthquake Tabs	EQT

#### AIR BALANCING DEVICES

##### Round Neck

- Radial Sliding Blade Damper	4250
- Radial Opposed Blade Damper	4275
- Butterfly Damper	4675
- Equalizing Grid	EGR
- Damper/Equalizing Grid	DEGR

##### Square/Rectangular Neck

- Opposed Blade Damper	OBD
- Equalizing Grid (long)	EGL
- Equalizing Grid (short)	EGS
- Damper/Equalizing Grid (long)	DEGL
- Damper/Equalizing Grid (short)	DEGS

#### FINISH

- Appliance White (default)	AW
- Special Custom Color	SP
- AW Face/Black Backpan	BA

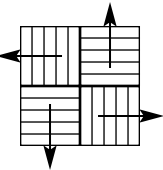
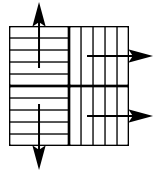
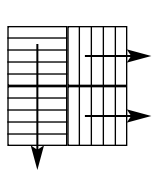
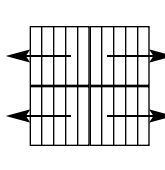
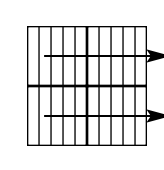
#### FRAME TYPE

- Lay-in T-Bar	L
- Surface Mount	S
- Spline	SP
- Metal Pan Snap-in	M
- Finline®	F

**D**  
CEILING DIFFUSERS

**Available Air Patterns**

All diffusers are shipped with the standard 4-way pattern, but the air pattern can be simply field adjusted by lowering the hinged face and rotating the spring loaded pattern controllers.

4-way
3-way
2-way corner
2-way opposite
1-way

**Note:**

1. Consult individual models as to limitations and availability of ceiling module and neck size combinations.

## SUGGESTED SPECIFICATION:

### Models 4320, 4325 – Steel

Furnish and install **Nailor Model** (select one) **4320 Flush Face** or **4325 Drop Face, Perforated Supply Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have a heavy gauge, stamped corrosion-resistant steel backpan with a round or square neck as specified. A corrosion-resistant steel perforated face shall have 3/16" (5) dia. holes on 1/4" (6) staggered centers, providing 51% free area. Mounted on the rear of the perforated face shall be four individually stamped square pattern deflectors that are easily field adjusted to provide throws in a 1, 2, 3, or 4-way pattern. The face shall be removable, hinged and include quick-release spring latches allowing easy access for cleaning and adjusting the deflectors (or optional damper). 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 4320A, 4325A – Aluminum Face

Furnish and install **Nailor Model** (select one) **4320A Flush Face** or **4325A Drop Face, Perforated Supply Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have a heavy gauge, stamped corrosion-resistant steel backpan with a round or square neck as specified. An aluminum perforated face shall have 3/16" (5) dia. holes on 1/4" (6) staggered centers, providing 51% free area. Mounted on the rear of the perforated face shall be four individually stamped square pattern deflectors that are easily field adjusted to provide throws in a 1, 2, 3, or 4-way pattern. The face shall be removable, hinged and include quick-release spring latches allowing easy access for cleaning and adjusting the deflectors (or optional damper). 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 4320AA, 4325AA – Aluminum

Furnish and install **Nailor Model** (select one) **4320AA Flush Face** or **4325AA Drop Face, Perforated Supply Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have a heavy gauge, stamped aluminum backpan with a round or square neck as specified. An aluminum perforated face shall have 3/16" (5) dia. holes on 1/4" (6) staggered centers, providing 51% free area. Mounted on the rear of the perforated face shall be four individually stamped square pattern deflectors that are easily field adjusted to provide throws in a 1, 2, 3, or 4-way pattern. The face shall be removable, hinged and include quick-release spring latches allowing easy access for cleaning and adjusting the deflectors (or optional damper). 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

### Models 4320, 4320A, 4320AA • Flush Face • 12 x 12 (300 x 300) Module Size

Nominal Neck Size	Neck Velocity, FPM	300	400	500	600	700	800	1000	1200	
	VP	.006	.010	.016	.023	.031	.040	.063	.090	
6" Dia.	TP	.012	.020	.032	.046	.063	.082	.128	.185	
	Flow Rate, CFM	58	78	98	117	137	156	196	235	
	T	4-Way	1-1-1	1-1-1	1-1-3	1-1-4	1-1-4	1-1-5	1-3-6	1-4-8
		3-Way	1-1-2	1-1-4	1-1-5	1-2-6	1-3-7	1-4-8	2-5-11	4-6-13
		2-Way	1-1-3	1-1-6	1-2-7	1-3-9	2-4-10	2-6-12	4-7-15	6-9-16
1-Way		1-1-4	1-2-7	1-3-9	2-4-11	2-6-13	3-7-14	6-9-17	7-11-19	
NC	—	—	—	19	24	28	35	41		
8" Dia.	TP	.014	.022	.035	.049	.065	.086	.132	.194	
	Flow Rate, CFM	105	140	175	210	245	280	350	420	
	T	4-Way	1-1-1	1-1-1	1-1-3	1-1-4	1-1-4	1-1-5	1-3-6	1-4-8
		3-Way	1-1-2	1-1-4	1-1-5	1-2-6	1-3-7	1-4-8	2-5-11	4-6-13
		2-Way	1-1-3	1-1-6	1-2-7	1-3-9	2-4-10	2-6-12	4-7-15	6-9-16
1-Way		1-1-4	1-2-7	1-3-9	2-4-11	2-6-13	3-7-14	6-9-17	7-11-19	
NC	—	—	16	22	27	31	38	44		
6 x 6	TP	.013	.022	.036	.052	.074	.092	.143	.206	
	Flow Rate, CFM	75	100	125	150	175	200	250	300	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-2-6	1-3-8	2-4-9
		3-Way	1-1-3	1-1-5	1-2-6	1-3-8	1-4-9	2-5-10	3-6-13	5-8-16
		2-Way	1-1-4	1-2-7	1-3-9	2-4-10	2-6-12	3-7-14	5-9-18	7-10-19
1-Way		1-1-6	1-2-8	2-4-11	2-6-13	3-7-15	5-8-17	7-11-20	8-13-22	
NC	—	—	16	22	27	31	38	44		
8 x 8	TP	.015	.026	.041	.059	.080	.104	.162	.234	
	Flow Rate, CFM	135	175	220	265	310	355	440	530	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-2-6	1-3-8	2-4-9
		3-Way	1-1-3	1-1-5	1-2-6	1-3-8	1-4-9	2-5-10	3-6-13	5-8-16
		2-Way	1-1-4	1-2-7	1-3-9	2-4-10	2-6-12	3-7-14	5-9-18	7-10-19
1-Way		1-1-6	1-2-8	2-4-11	2-6-13	3-7-15	5-8-17	7-11-20	8-13-22	
NC	—	12	19	25	30	34	41	47		

### Models 4320, 4320A, 4320AA • Flush Face • 24 x 12 (600 x 300) Module Size

Nominal Neck Size	Neck Velocity, FPM	300	400	500	600	700	800	1000	1200	
	VP	.006	.010	.016	.023	.031	.040	.063	.090	
6" Dia.	TP	.012	.020	.032	.046	.063	.082	.128	.185	
	Flow Rate, CFM	58	78	98	117	137	156	196	235	
	T	4-Way	1-1-1	1-1-1	1-1-3	1-1-4	1-1-4	1-1-5	1-3-6	1-4-8
		3-Way	1-1-2	1-1-4	1-1-5	1-2-6	1-3-7	1-4-8	2-5-11	4-6-13
		2-Way	1-1-3	1-1-6	1-2-7	1-3-9	2-4-10	2-6-12	4-7-15	6-9-16
1-Way		1-1-4	1-2-7	1-3-9	2-4-11	2-6-13	3-7-14	6-9-17	7-11-19	
NC	—	—	—	19	24	28	35	41		
8" Dia.	TP	.014	.022	.035	.049	.065	.086	.132	.194	
	Flow Rate, CFM	105	140	175	210	245	280	350	420	
	T	4-Way	1-1-1	1-1-1	1-1-3	1-1-4	1-1-4	1-1-5	1-3-6	1-4-8
		3-Way	1-1-2	1-1-4	1-1-5	1-2-6	1-3-7	1-4-8	2-5-11	4-6-13
		2-Way	1-1-3	1-1-6	1-2-7	1-3-9	2-4-10	2-6-12	4-7-15	6-9-16
1-Way		1-1-4	1-2-7	1-3-9	2-4-11	2-6-13	3-7-14	6-9-17	7-11-19	
NC	—	—	16	22	27	31	38	44		
6 x 6	TP	.013	.022	.036	.052	.074	.092	.143	.206	
	Flow Rate, CFM	75	100	125	150	175	200	250	300	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-2-6	1-3-8	2-4-9
		3-Way	1-1-3	1-1-5	1-2-6	1-3-8	1-4-9	2-5-10	3-6-13	5-8-16
		2-Way	1-1-4	1-2-7	1-3-9	2-4-10	2-6-12	3-7-14	5-9-18	7-10-19
1-Way		1-1-6	1-2-8	2-4-11	2-6-13	3-7-15	5-8-17	7-11-20	8-13-22	
NC	—	—	16	22	27	31	38	44		
8 x 8	TP	.015	.026	.041	.059	.080	.104	.162	.234	
	Flow Rate, CFM	135	175	220	265	310	355	440	530	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-2-6	1-3-8	2-4-9
		3-Way	1-1-3	1-1-5	1-2-6	1-3-8	1-4-9	2-5-10	3-6-13	5-8-16
		2-Way	1-1-4	1-2-7	1-3-9	2-4-10	2-6-12	3-7-14	5-9-18	7-10-19
1-Way		1-1-6	1-2-8	2-4-11	2-6-13	3-7-15	5-8-17	7-11-20	8-13-22	
NC	—	12	19	25	30	34	41	47		

For performance notes, see page D143.

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## Performance Data

Models 4320, 4320A, 4320AA • Flush Face • 24 x 24 (600 x 600) Module Size • Round Neck

Nominal Neck Size	Neck Velocity, FPM	300	400	500	600	700	800	1000	1200	
6" Dia.	VP	.006	.010	.016	.023	.031	.040	.063	.090	
	TP	.012	.020	.032	.046	.062	.082	.128	.185	
	Flow Rate, CFM	58	78	98	117	137	156	196	235	
	T	4-Way	1-1-1	1-1-1	1-1-3	1-1-4	1-1-4	1-1-5	1-3-6	1-4-8
		3-Way	1-1-2	1-1-4	1-1-5	1-2-6	1-3-7	1-4-8	2-5-11	4-6-13
		2-Way	1-1-3	1-1-6	1-2-7	1-3-9	2-4-10	2-6-12	4-7-15	6-9-16
1-Way		1-1-4	1-2-7	1-3-9	2-4-11	2-6-13	3-7-14	6-9-17	7-11-19	
NC	—	—	10	18	21	25	32	38		
8" Dia.	TP	.015	.026	.042	.060	.082	.107	.167	.241	
	Flow Rate, CFM	104	139	174	209	244	279	349	418	
	T	4-Way	1-1-2	1-1-3	1-1-5	1-2-6	1-2-7	1-3-8	2-5-10	3-6-12
		3-Way	1-1-4	1-2-6	1-3-8	2-4-10	2-5-11	3-6-13	5-8-17	6-10-20
		2-Way	1-1-6	1-3-9	2-4-11	3-6-13	4-8-16	5-9-18	7-11-22	9-13-24
		1-Way	1-2-8	1-4-11	2-6-14	4-8-16	5-9-19	7-11-22	9-14-26	11-16-29
NC	—	11	16	22	27	31	38	44		
10" Dia.	TP	.019	.033	.053	.075	.102	.135	.210	.302	
	Flow Rate, CFM	163	218	272	327	381	436	545	654	
	T	4-Way	1-1-3	1-1-5	1-2-7	1-3-8	2-4-10	2-5-11	4-7-14	5-8-17
		3-Way	1-1-7	1-3-9	2-5-11	3-7-14	4-8-16	5-9-18	7-11-23	9-14-27
		2-Way	1-2-9	2-5-12	3-7-15	5-9-19	7-11-22	8-12-26	10-15-32	12-19-34
		1-Way	1-3-11	3-7-15	4-9-19	7-11-23	9-13-28	10-15-31	12-19-36	15-23-39
NC	—	16	21	27	32	36	43	49		
12" Dia.	TP	.022	.040	.063	.091	.124	.162	.253	.364	
	Flow Rate, CFM	235	314	392	471	549	628	785	942	
	T	4-Way	1-1-5	1-2-7	1-3-9	2-5-11	3-6-13	4-7-14	6-9-18	7-11-22
		3-Way	1-2-9	2-5-12	3-7-15	5-9-18	6-10-21	8-12-24	10-15-31	12-18-36
		2-Way	1-4-12	3-7-16	5-10-20	7-12-24	9-14-29	10-16-33	13-20-41	16-24-44
		1-Way	2-6-14	4-9-19	7-12-24	9-14-30	11-17-35	13-19-40	16-24-46	19-30-50
NC	—	19	25	31	36	40	47	53		
14" Dia.	TP	.026	.047	.073	.105	.143	.187	.292	.420	
	Flow Rate, CFM	318	424	530	636	742	848	1060	1272	
	T	4-Way	1-1-6	1-3-9	2-5-11	3-6-13	4-8-16	5-9-18	7-11-23	9-13-28
		3-Way	1-4-11	3-7-14	4-9-18	7-11-22	8-13-27	9-14-30	12-18-38	14-22-44
		2-Way	2-6-15	4-10-20	7-12-26	10-15-31	11-17-36	13-20-41	16-26-50	20-31-54
		1-Way	3-8-18	6-12-24	10-15-31	12-18-38	14-21-44	16-24-50	20-30-57	24-38-62
NC	13	23	29	35	40	44	51	57		
15" Dia.	TP	.029	.052	.081	.117	.159	.208	.324	.467	
	Flow Rate, CFM	370	490	615	740	860	985	1225	1475	
	T	4-Way	1-1-6	1-3-9	2-5-11	3-6-13	4-8-16	5-9-18	7-11-23	9-13-28
		3-Way	1-4-11	3-7-14	4-9-18	7-11-22	8-13-27	9-14-30	12-18-38	14-22-44
		2-Way	2-6-15	4-10-20	7-12-26	10-15-31	11-17-36	13-20-41	16-26-50	20-31-54
		1-Way	3-8-18	6-12-24	10-15-31	12-18-38	14-21-44	16-24-50	20-30-57	24-38-62
NC	15	25	31	37	42	46	53	59		
16" Dia.	TP	.032	.058	.090	.129	.175	.229	.359	.517	
	Flow Rate, CFM	418	558	698	837	977	1116	1396	1675	
	T	4-Way	1-3-10	2-5-13	3-8-15	5-10-16	7-12-22	9-13-19	12-15-21	13-16-23
		3-Way	3-5-9	5-7-10	6-8-11	7-9-12	8-9-13	8-10-14	9-11-16	10-12-18
		2-Way	2-5-11	4-8-13	6-10-14	8-11-16	9-12-17	10-13-18	12-14-20	13-16-22
		1-Way	7-12-21	11-17-24	14-29-28	17-21-31	18-23-33	20-24-36	22-28-40	24-31-43
NC	16	26	32	38	43	47	54	60		

For performance notes, see page D143.

## Performance Data

Models 4320, 4320A, 4320AA • Flush Face • 24 x 24 (600 x 600) Module Size • Square Neck

Nominal Neck Size	Neck Velocity, FPM	300	400	500	600	700	800	1000	1200	
	VP	.006	.010	.016	.023	.031	.040	.063	.090	
6 x 6	TP	.013	.022	.036	.052	.070	.092	.143	.206	
	Flow Rate, CFM	75	100	125	150	175	200	250	300	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-2-6	1-3-8	2-4-9
		3-Way	1-1-3	1-1-5	1-2-6	1-3-8	1-4-9	2-5-10	3-6-13	5-8-16
		2-Way	1-1-4	1-2-7	1-3-9	2-4-10	2-6-12	3-7-14	5-9-18	7-10-19
1-Way		1-1-6	1-2-8	2-4-11	2-6-13	3-7-15	5-8-17	7-11-20	8-13-22	
NC	—	—	12	20	23	27	34	40		
8 x 8	TP	.018	.030	.048	.069	.094	.123	.191	.276	
	Flow Rate, CFM	133	177	222	266	310	355	444	532	
	T	4-Way	1-1-2	1-1-4	1-1-6	1-2-7	1-3-8	2-4-9	3-6-12	4-7-14
		3-Way	1-1-5	1-2-8	1-4-10	2-5-12	3-7-14	4-8-16	6-10-20	8-12-24
		2-Way	1-2-8	1-4-10	2-6-13	4-8-16	5-9-19	7-10-21	9-13-27	10-16-30
1-Way		1-3-9	2-5-13	3-8-16	5-9-19	7-11-23	8-13-27	11-16-31	13-19-34	
NC	—	14	19	25	30	34	41	47		
10 x 10	TP	.021	.038	.059	.086	.116	.152	.237	.341	
	Flow Rate, CFM	208	277	347	416	485	555	694	832	
	T	4-Way	1-1-4	1-2-6	1-3-8	2-4-10	2-5-11	3-6-13	5-8-16	6-10-20
		3-Way	1-2-8	1-4-11	3-6-13	4-8-16	5-9-19	7-11-22	9-13-28	11-16-33
		2-Way	1-3-11	3-6-14	4-9-18	6-11-22	8-13-27	9-14-30	12-18-37	14-22-40
1-Way		2-5-13	4-9-18	6-11-22	9-13-28	10-16-33	12-18-37	15-22-42	18-28-46	
NC	—	17	24	30	35	39	45	52		
12 x 12	TP	.025	.046	.071	.103	.140	.183	.286	.411	
	Flow Rate, CFM	300	400	500	600	700	800	1000	1200	
	T	4-Way	1-1-6	1-3-8	2-4-11	3-6-13	4-7-15	5-8-17	7-11-22	8-13-27
		3-Way	1-3-10	2-6-14	4-9-18	6-10-21	8-12-26	9-14-29	11-18-37	14-21-42
		2-Way	2-5-14	4-9-19	7-12-24	9-14-30	11-17-35	13-19-40	16-24-47	19-30-52
1-Way		3-8-17	6-11-23	9-14-30	11-17-36	13-20-42	15-23-48	19-30-54	23-36-59	
NC	12	21	28	34	39	43	49	56		
14 x 14	TP	.031	.055	.086	.124	.169	.221	.345	.497	
	Flow Rate, CFM	410	545	680	815	955	1090	1360	1635	
	T	4-Way	1-1-6	1-3-8	2-4-11	3-6-13	4-7-15	5-8-17	7-11-22	8-13-27
		3-Way	1-3-10	2-6-14	4-9-18	6-10-21	8-12-26	9-14-29	11-18-37	14-21-42
		2-Way	2-5-14	4-9-19	7-12-24	9-14-30	11-17-35	13-19-40	16-24-47	19-30-52
1-Way		3-8-17	6-11-23	9-14-30	11-17-36	13-20-42	15-23-48	19-30-54	23-36-59	
NC	15	24	31	37	42	46	52	59		

CFM - cubic feet per minute  
 FPM - feet per minute velocity  
 TP - total pressure - inches w.g.  
 VP - velocity pressure - inches w.g.  
 T - throw in feet  
 NC - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

**Performance Notes:**  
 1. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.  
 2. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.

Neck Size Square in Inches	Nominal Overall Face Size	Ak Factor
6 x 6	12 x 12	0.2345
8 x 8	12 x 12	0.3461
6 x 6	24 x 24	0.6932
8 x 8	24 x 24	0.7620
10 x 10	24 x 24	0.7995
12 x 12	24 x 24	0.8464
14 x 14	24 x 24	0.8993

Neck Size Diameter in Inches	Nominal Overall Face Size	Ak Factor
6	12 x 12	0.2289
8	12 x 12	0.2418
6	24 x 24	0.6010
8	24 x 24	0.6854
10	24 x 24	0.7283
12	24 x 24	0.7651
14	24 x 24	0.8102
15	24 x 24	0.8389

D  
CEILING DIFFUSERS

## Performance Data

### Models 4325, 4325A, 4325AA • Drop Face • 12 x 12 (300 x 300) Module Size

Nominal Neck Size	Neck Velocity, FPM	300	400	500	600	700	800	1000	1200	
6" Dia.	VP	.006	.010	.016	.023	.031	.040	.063	.090	
	TP	.009	.016	.025	.036	.049	.063	.099	.143	
	Flow Rate, CFM	58	78	98	117	137	156	196	235	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-3	1-2-4	1-2-4	2-3-6	2-3-6
		3-Way	1-1-2	1-1-3	1-2-4	1-2-5	1-3-6	2-3-7	3-4-9	3-5-9
		2-Way	1-1-3	1-1-4	1-2-5	1-3-6	2-3-7	2-4-8	3-5-11	4-6-12
1-Way		1-1-4	1-2-6	1-3-7	2-4-9	3-5-10	4-6-12	5-7-15	6-9-16	
NC	—	—	—	16	21	25	32	38		
8" Dia.	TP	.010	.017	.026	.037	.051	.067	.104	.150	
	Flow Rate, CFM	105	140	175	210	245	280	350	420	
	T	4-Way	1-1-1	1-1-1	1-1-3	1-1-4	1-1-4	1-1-5	1-3-6	1-4-8
		3-Way	1-1-2	1-1-4	1-1-5	1-2-6	1-3-7	1-4-8	2-5-11	4-6-13
		2-Way	1-1-3	1-1-6	1-2-7	1-3-9	2-4-10	2-6-12	4-7-15	6-9-16
		1-Way	1-1-4	1-2-7	1-3-9	2-4-11	2-6-13	3-7-14	6-9-17	7-11-19
NC	—	—	14	20	25	29	36	42		
6 x 6	TP	.010	.019	.028	.041	.056	.072	.113	.163	
	Flow Rate, CFM	75	100	125	150	175	200	250	300	
	T	4-Way	1-1-2	1-1-3	1-1-3	1-2-4	1-2-5	2-3-6	2-3-7	3-4-7
		3-Way	1-1-3	1-1-4	1-2-5	1-3-6	2-4-8	3-4-9	3-5-10	4-6-11
		2-Way	1-1-4	1-2-5	1-3-7	2-4-8	3-4-9	3-5-11	4-7-13	5-8-14
		1-Way	1-1-5	1-3-7	2-4-9	3-5-11	4-6-13	5-7-15	6-9-17	7-11-19
NC	—	—	13	19	24	28	35	41		
8 x 8	TP	.012	.021	.032	.046	.063	.082	.128	.185	
	Flow Rate, CFM	135	175	220	265	310	355	440	530	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-2-6	1-3-8	2-4-9
		3-Way	1-1-3	1-1-5	1-2-6	1-3-8	1-4-9	2-5-10	3-6-13	5-8-16
		2-Way	1-1-4	1-2-7	1-3-9	2-4-10	2-6-12	3-7-14	5-9-18	7-10-19
		1-Way	1-1-6	1-2-8	2-4-11	2-6-13	3-7-15	5-8-17	7-11-20	8-13-22
NC	—	10	17	23	28	32	39	45		

### Models 4325, 4325A, 4325AA • Drop Face • 24 x 12 (600 x 300) Module Size

Nominal Neck Size	Neck Velocity, FPM	300	400	500	600	700	800	1000	1200	
6" Dia.	VP	.006	.010	.016	.023	.031	.040	.063	.090	
	TP	.009	.016	.025	.036	.049	.063	.099	.143	
	Flow Rate, CFM	58	78	98	117	137	156	196	235	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-3	1-2-4	1-2-4	2-3-6	2-3-6
		3-Way	1-1-2	1-1-3	1-2-4	1-2-5	1-3-6	2-3-7	3-4-9	3-5-9
		2-Way	1-1-3	1-1-4	1-2-5	1-3-6	2-3-7	2-4-8	3-5-11	4-6-12
1-Way		1-1-4	1-2-6	1-3-7	2-4-9	3-5-10	4-6-12	5-7-15	6-9-16	
NC	—	—	—	16	21	25	32	38		
8" Dia.	TP	.010	.017	.026	.037	.051	.067	.104	.150	
	Flow Rate, CFM	105	140	175	210	245	280	350	420	
	T	4-Way	1-1-1	1-1-1	1-1-3	1-1-4	1-1-4	1-1-5	1-3-6	1-4-8
		3-Way	1-1-2	1-1-4	1-1-5	1-2-6	1-3-7	1-4-8	2-5-11	4-6-13
		2-Way	1-1-3	1-1-6	1-2-7	1-3-9	2-4-10	2-6-12	4-7-15	6-9-16
		1-Way	1-1-4	1-2-7	1-3-9	2-4-11	2-6-13	3-7-14	6-9-17	7-11-19
NC	—	—	14	20	25	29	36	42		
6 x 6	TP	.013	.022	.036	.052	.074	.092	.143	.206	
	Flow Rate, CFM	75	100	125	150	175	200	250	300	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-2-6	1-3-8	2-4-9
		3-Way	1-1-3	1-1-5	1-2-6	1-3-8	1-4-9	2-5-10	3-6-13	5-8-16
		2-Way	1-1-4	1-2-7	1-3-9	2-4-10	2-6-12	3-7-14	5-9-18	7-10-19
		1-Way	1-1-6	1-2-8	2-4-11	2-6-13	3-7-15	5-8-17	7-11-20	8-13-22
NC	—	—	13	19	24	28	35	41		
8 x 8	TP	.012	.021	.032	.046	.063	.082	.128	.185	
	Flow Rate, CFM	135	175	220	265	310	355	440	530	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-4	1-1-5	1-2-6	1-3-8	2-4-9
		3-Way	1-1-3	1-1-5	1-2-6	1-3-8	1-4-9	2-5-10	3-6-13	5-8-16
		2-Way	1-1-4	1-2-7	1-3-9	2-4-10	2-6-12	3-7-14	5-9-18	7-10-19
		1-Way	1-1-6	1-2-8	2-4-11	2-6-13	3-7-15	5-8-17	7-11-20	8-13-22
NC	—	10	17	23	28	32	39	45		

For performance notes, see page D146.

## Performance Data

Models 4325, 4325A, 4325AA • Drop Face • 24 x 24 (600 x 600) Module Size • Round Neck

Nominal Neck Size	Neck Velocity, FPM	300	400	500	600	700	800	1000	1200	
	VP	.006	.010	.016	.023	.031	.040	.063	.090	
6" Dia.	TP	.009	.016	.025	.036	.049	.063	.099	.143	
	Flow Rate, CFM	58	78	98	117	137	156	196	235	
	T	4-Way	1-1-1	1-1-2	1-1-3	1-1-3	1-2-4	1-2-4	2-3-6	2-3-6
		3-Way	1-1-2	1-1-3	1-2-4	1-2-5	1-3-6	2-3-7	3-4-9	3-5-9
		2-Way	1-1-3	1-1-4	1-2-5	1-3-6	2-3-7	2-4-8	3-5-11	4-6-12
1-Way		1-1-4	1-2-6	1-3-7	2-4-9	3-5-10	4-6-12	5-7-15	6-9-16	
NC	—	—	—	15	18	22	29	35		
8" Dia.	TP	.013	.021	.034	.049	.066	.087	.136	.195	
	Flow Rate, CFM	104	139	174	209	244	279	349	418	
	T	4-Way	1-1-3	1-1-4	1-2-5	1-3-6	2-3-7	2-4-8	3-5-8	4-6-9
		3-Way	1-1-4	1-2-6	2-3-7	2-4-9	3-5-11	4-6-12	5-7-13	6-9-14
		2-Way	1-2-5	1-3-7	2-4-9	3-5-11	4-6-13	5-7-15	6-9-16	7-11-18
1-Way		1-2-7	2-4-10	3-6-12	4-7-15	6-9-18	6-10-19	8-12-21	10-15-23	
NC	—	—	13	18	24	28	35	41		
10" Dia.	TP	.016	.027	.043	.061	.084	.109	.171	.245	
	Flow Rate, CFM	163	218	272	327	381	436	545	654	
	T	4-Way	1-1-4	1-3-6	2-3-7	3-4-9	3-5-10	4-6-10	5-7-12	6-9-13
		3-Way	1-2-7	2-4-9	3-6-12	4-7-14	5-8-15	6-9-16	8-12-18	9-14-20
		2-Way	1-3-8	2-5-11	4-7-14	5-8-17	6-10-19	7-11-20	9-14-22	11-17-26
1-Way		2-4-11	3-7-15	6-9-19	7-11-23	9-13-26	10-15-28	13-19-31	15-23-34	
NC	—	13	18	24	29	33	40	46		
12" Dia.	TP	.019	.033	.052	.074	.101	.132	.207	.297	
	Flow Rate, CFM	235	314	392	471	549	628	785	942	
	T	4-Way	1-3-6	2-4-9	3-5-11	4-6-12	5-7-13	6-9-14	7-11-15	9-12-17
		3-Way	2-4-10	3-6-13	5-8-16	6-10-18	7-11-19	9-13-20	11-16-23	13-18-26
		2-Way	2-5-12	4-8-16	6-10-20	8-12-22	9-14-24	11-16-22	13-20-30	16-22-33
1-Way		3-7-16	6-11-22	9-14-28	11-16-30	13-19-33	14-22-35	18-28-39	22-30-43	
NC	—	17	23	29	34	38	45	51		
14" Dia.	TP	.021	.038	.059	.086	.117	.153	.239	.344	
	Flow Rate, CFM	318	424	530	636	742	848	1060	1272	
	T	4-Way	2-4-8	3-5-11	4-7-13	5-8-14	6-10-16	7-11-17	9-13-19	11-14-21
		3-Way	3-6-13	5-9-18	7-11-20	9-13-22	10-15-24	12-18-26	15-20-29	18-23-32
		2-Way	3-8-16	6-11-22	9-13-26	11-16-28	12-19-31	14-22-33	18-27-36	22-28-40
1-Way		5-11-22	9-14-30	12-18-35	14-22-38	17-27-41	19-30-44	24-35-49	30-38-51	
NC	10	20	28	32	37	41	48	54		
15" Dia.	TP	.022	.040	.062	.091	.127	.171	.265	.366	
	Flow Rate, CFM	370	490	615	740	860	985	1225	1475	
	T	4-Way	2-4-7	3-5-10	4-7-12	5-8-14	6-9-15	7-10-17	9-12-19	10-13-21
		3-Way	3-6-13	5-9-19	7-10-19	9-12-22	10-15-23	12-18-26	14-19-29	18-22-32
		2-Way	3-8-15	6-11-21	8-12-26	11-15-28	11-19-30	13-21-32	18-27-35	21-27-40
1-Way		5-10-21	8-14-29	11-17-34	13-21-36	17-26-40	18-29-42	24-34-47	28-36-50	
NC	12	22	28	34	39	43	50	56		
16" Dia.	TP	.025	.045	.070	.100	.137	.179	.280	.403	
	Flow Rate, CFM	418	558	698	837	977	1116	1396	1675	
	T	4-Way	3-5-11	5-7-15	6-9-17	7-11-18	8-13-20	10-15-21	12-17-24	15-18-27
		3-Way	2-6-13	4-9-17	7-11-19	9-13-21	10-16-22	12-17-24	15-19-28	17-21-30
		2-Way	2-6-13	4-9-17	7-11-19	9-13-21	10-16-22	12-17-24	15-19-28	17-21-30
1-Way		7-12-23	12-17-27	15-21-31	18-23-34	20-26-36	22-27-39	24-31-43	26-34-47	
NC	13	23	29	35	40	44	51	57		

For performance notes, see page D146.

## Performance Data

### Models 4325, 4325A, 4325AA • Drop Face • 24 x 24 (600 x 600) Module Size • Square Neck

Nominal Neck Size	Neck Velocity, FPM	300	400	500	600	700	800	1000	1200	
	VP	.006	.010	.016	.023	.031	.040	.063	.090	
6 x 6	TP	.010	.019	.028	.041	.056	.072	.113	.163	
	Flow Rate, CFM	75	100	125	150	175	200	250	300	
	T	4-Way	1-1-2	1-1-3	1-1-3	1-2-4	1-2-5	2-3-6	2-3-7	3-4-7
		3-Way	1-1-3	1-1-4	1-2-5	1-3-6	2-4-8	3-4-9	3-5-10	4-6-11
		2-Way	1-1-4	1-2-5	1-3-7	2-4-8	3-4-9	3-5-11	4-7-13	5-8-14
1-Way		1-1-5	1-3-7	2-4-9	3-5-11	4-6-13	5-7-15	6-9-17	7-11-19	
NC	—	—	—	17	20	24	31	37		
8 x 8	TP	.014	.024	.038	.056	.075	.098	.153	.220	
	Flow Rate, CFM	133	177	222	266	310	355	444	532	
	T	4-Way	1-1-3	1-2-5	1-3-6	2-3-7	3-4-8	3-5-9	4-6-10	5-7-11
		3-Way	1-2-5	1-3-7	2-4-9	3-5-11	4-6-13	5-7-14	6-9-15	7-11-17
		2-Way	1-2-7	2-4-9	3-6-12	4-7-14	5-8-16	6-9-17	8-12-19	9-14-21
1-Way		1-3-9	3-6-13	4-8-16	6-9-19	7-11-21	8-13-23	10-16-27	13-19-29	
NC	—	11	16	22	27	31	38	44		
10 x 10	TP	.018	.031	.049	.069	.095	.124	.193	.278	
	Flow Rate, CFM	208	277	347	416	485	555	694	832	
	T	4-Way	1-2-5	2-3-7	3-4-9	3-5-11	4-6-12	5-7-12	6-9-14	7-11-15
		3-Way	1-4-8	3-5-11	4-7-14	5-8-16	6-10-18	7-11-19	9-14-21	11-16-23
		2-Way	2-5-11	4-7-14	6-9-18	7-11-20	8-13-22	9-14-24	12-18-28	14-20-30
1-Way		3-6-14	5-9-19	8-12-24	9-14-28	11-17-30	13-19-32	16-24-36	19-28-39	
NC	—	14	21	27	32	36	42	49		
12 x 12	TP	.020	.037	.058	.084	.114	.149	.233	.335	
	Flow Rate, CFM	300	400	500	600	700	800	1000	1200	
	T	4-Way	1-4-8	3-5-11	4-7-13	5-8-14	6-9-15	7-11-16	9-13-18	11-14-20
		3-Way	2-6-12	5-8-17	7-10-19	8-12-21	10-15-23	11-17-24	14-19-28	17-21-31
		2-Way	3-7-15	6-10-21	8-13-24	10-15-27	12-18-29	14-21-32	17-24-35	21-27-38
1-Way		4-10-21	8-14-29	11-17-33	14-21-36	16-24-39	18-29-42	23-33-46	28-36-51	
NC	—	18	25	31	36	40	46	53		
14 x 14	TP	.025	.046	.071	.103	.140	.183	.286	.411	
	Flow Rate, CFM	408	544	681	817	953	1089	1361	1633	
	T	4-Way	1-1-6	1-3-8	2-4-11	3-6-13	4-7-15	5-8-17	7-11-22	8-13-27
		3-Way	1-3-10	2-6-14	4-9-18	6-10-21	8-12-26	9-14-29	11-18-37	14-21-42
		2-Way	2-5-14	4-9-19	7-12-24	9-14-30	11-17-35	13-19-40	16-24-47	19-30-52
1-Way		3-8-17	6-11-23	9-14-30	11-17-36	13-20-42	15-23-48	19-30-54	23-36-59	
NC	12	21	28	34	39	43	49	56		

D

CEILING DIFFUSERS

CFM - cubic feet per minute  
 FPM - feet per minute velocity  
 TP - total pressure - inches w.g.  
 VP - velocity pressure - inches w.g.  
 T - throw in feet  
 NC - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

**Performance Notes:**  
 1. Throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.  
 2. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.

**Balancing:**  
 It is recommended that a commercially available 'Flow Hood' is used for field balancing. The airflow meter directly reads average flow rate with great accuracy at all volumes. It is a much faster and more accurate alternative to time consuming multiple velocity readings, eliminating the use of Ak factors and the calculations required to convert the average velocity into airflow.