

ARCHITECTURAL CEILING TILE SLOT DIFFUSER

- 'ICE TONG' PATTERN CONTROLLERS
- SQUARE FACE
- ROUND NECK (SUPPLY)

Models:

Supply

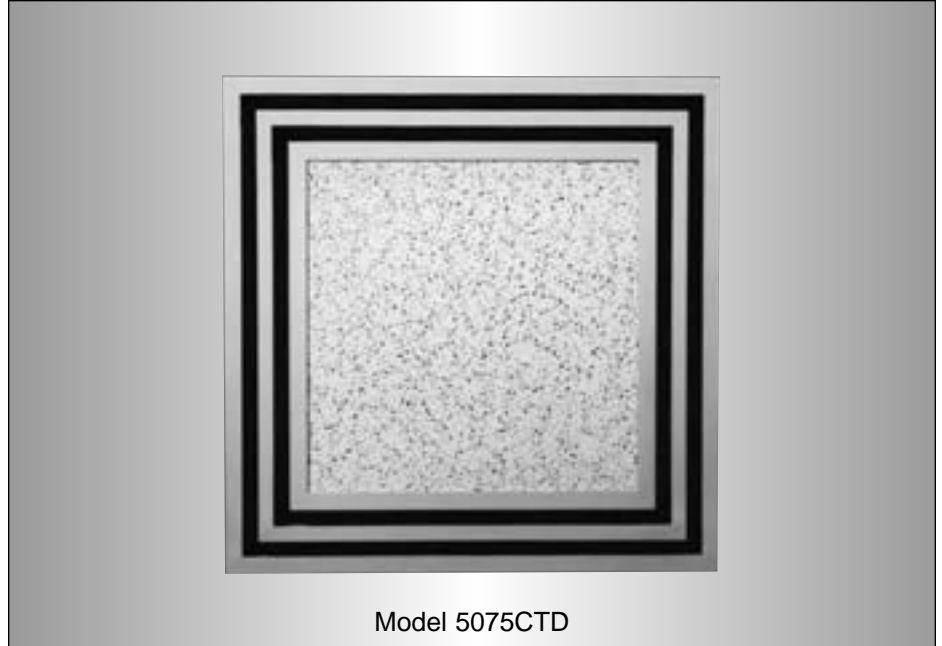
5075CTD 3/4" (19) Slot

5010CTD 1" (25) Slot

Return

5075RCTD 3/4" (19) Slot

5010RCTD 1" (25) Slot



The **Nailor 5000CTD Series Diffusers** have been designed with the architect in mind to provide an unobtrusive high performance ceiling diffuser that incorporates a center ceiling tile (by others) that matches the surrounding ceiling system. This product is available in a nominal size of 24" x 24" (600 x 600) to suit both imperial and metric exposed grid suspended ceiling systems. The 4-way blow linear slot design utilizes the 'ice-tong' premium quality pattern controller, providing a tight horizontal air pattern, which can accommodate high turn down ratios and is therefore eminently suitable for variable air volume systems.

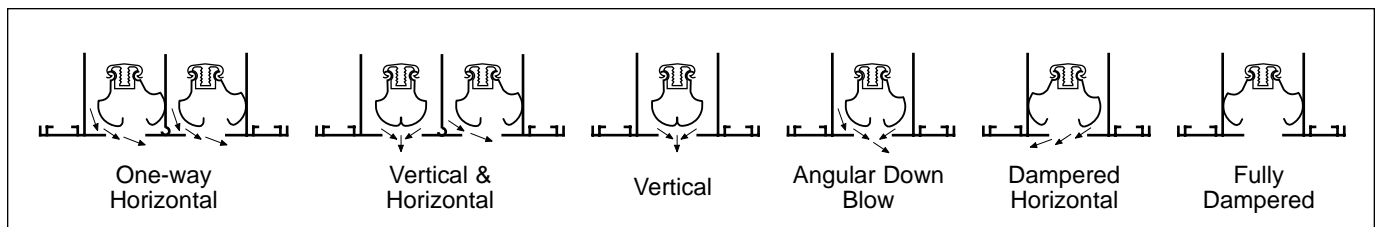
FEATURES:

- Factory precision welding on all mitered corners.
- Pattern controllers are individually adjustable for each slot with 180° air pattern adjustment from horizontal to vertical providing volume control.
- Discharge patterns are fully field adjustable for 1-way, 2-way corner, 2-way opposite, 3-way or 4-way patterns.
- Designed for use with standard 15/16" (24) T-Bar and narrow 9/16" (14) flat T-Bar ceiling systems.
- Available in 1, 2, 3 or 4 slots.
- Choice of 3/4" (19) or 1" (25) slot width.
- Supply diffuser has a round neck for flexible duct connection.
- Optional internal or external insulation available.
- Matching return air unit is similar in design, but minus pattern controllers. For ductless plenum return applications, the **5000RCTD** incorporates a light shield to block out light and prevent see-through.
- Plenum is secured with steel S-clips and is easily removable for installation of a field cut ceiling tile (by others) into the face of the diffuser.

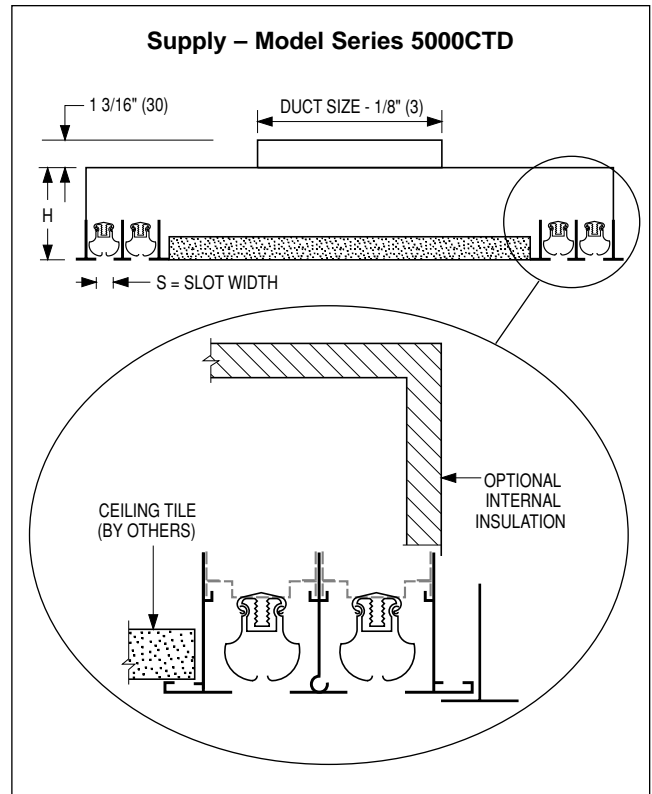
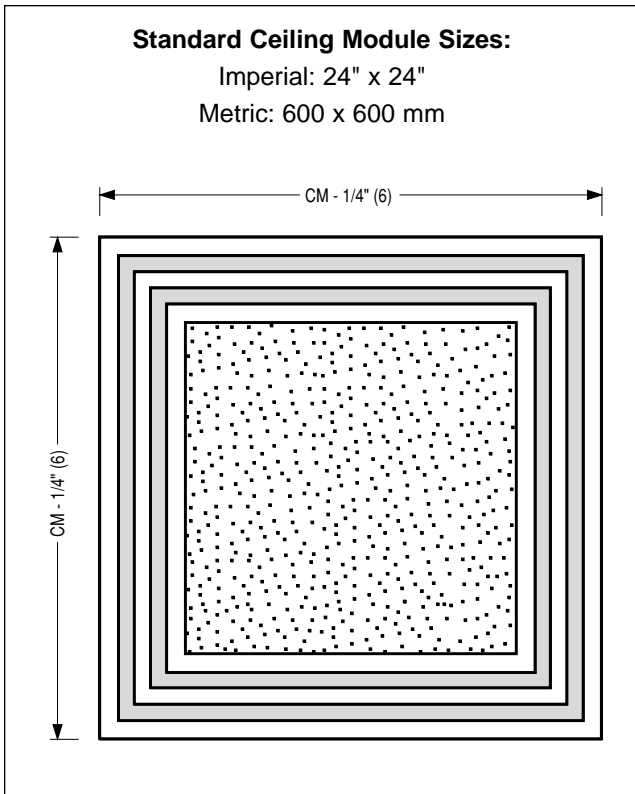
Material: Extruded aluminum frame, roll-formed steel pattern controllers and corrosion-resistant steel plenum.

Finish: AW Appliance White baked enamel face with black pattern controllers. Other finishes are available.

'Ice Tong' Pattern Controller Adjustment



Dimensional Data Model Series 5000CTD

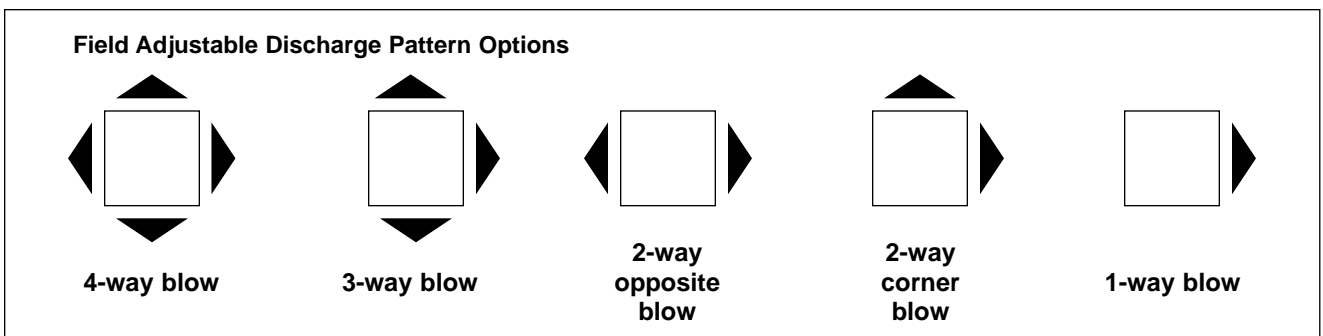
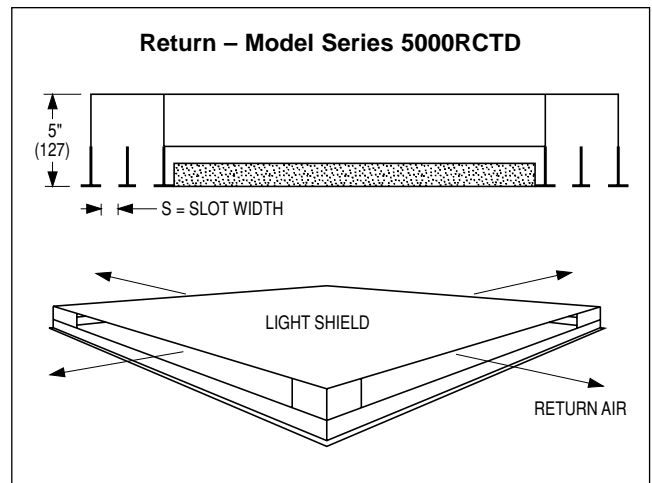


Ceiling Tile Cutting Dimensions

No. of Slots	Imperial Units (inches)			Metric Units (mm)		
	Slot Width(s)		H	Slot Width(s)		H
	S = 3/4	S = 1		S = 19	S = 25	
1	19 1/2 x 19 1/2	19 x 19	5	495 x 495	483 x 483	127
2	16 1/2 x 16 1/2	15 1/2 x 15 1/2	5	419 x 419	394 x 394	127
3	13 1/2 x 13 1/2	12 x 12	6 3/4	343 x 343	305 x 305	171
4	10 1/2 x 10 1/2	8 1/2 x 8 1/2	6 3/4	267 x 267	216 x 216	171

Standard Round Inlet Sizes:

Imperial: 6", 8", 10", 12" and 14" dia.
Metric: 152, 203, 254, 305 and 356 mm dia.



D
CEILING DIFFUSERS

HOW TO SPECIFY OR TO ORDER

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

Architectural Ceiling Tile Slot Diffusers – Model Series 5000CTD

5075CTD - - - 02 - 08 - 24 x 24 - AW - -

MODEL/SLOT SIZE

Supply:

- 3/4" (19)
- 1" (25)

Return:

- 3/4" (19)
- 1" (25)

FINELINE®

5075CTD
5010CTD
5075RCTD
5010RCTD

F

ACCESSORIES

- None (default)
- Internal Insulation

—
IN

FINISH

- Appliance White (default)
- Aluminum
- Special Custom Color

AW
AL
SP

CEILING MODULE SIZE

Imperial (inches)	Metric (mm)
- 24 x 24	600 x 600

INLET SIZE (inches)

- 06, 08, 10, 12, 14

NO. OF SLOTS

01 thru 04

Notes:

1. Inlet size to be specified on supply models only.

SUGGESTED SPECIFICATION:

5075CTD, 5010CTD – Supply Air, Standard T-Bar

Furnish and install **Nailor Model** (select one) **5075CTD** (3/4" (19) slot) or **Model 5010CTD** (1" (25) slot) **Ceiling Tile Slot Supply Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have an extruded aluminum face, roll-formed steel pattern controllers, and a corrosion-resistant steel plenum. The outside face of the diffuser shall incorporate 1, 2, 3, or 4 (select the quantity) discharge air slots which integrate 'ice-tong' shaped adjustable pattern controllers. The center of the diffuser must accommodate a ceiling tile (provided by the installing contractor). The steel plenum shall be easily removable and include a round inlet collar that is not less than 1 3/16" (30) high. The diffuser shall fit a 24" x 24" (610 x 610) or 600 x 600 standard T-Bar ceiling system. (Optional) The diffuser shall have internal insulation. The finish shall be AW Appliance White baked enamel finish. (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.

5075RCTD, 5010RCTD – Return Air, Standard T-Bar

Furnish and install **Nailor Model** (select one) **5075RCTD** (3/4" (19) slot) or **Model 5010RCTD** (1" (25) slot) **Ceiling Tile Slot Return Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have an extruded aluminum face, and a corrosion-resistant steel plenum. The outside face of the diffuser shall incorporate 1, 2, 3, or 4 (select the quantity) return air slots to match the supply air diffuser of the same model. The center of the diffuser must accommodate a ceiling tile (provided by the installing contractor). The diffuser shall fit a 24" x 24" (610 x 610) or 600 x 600 standard T-Bar ceiling system. A removable light shield shall be factory installed on the rear of the diffuser. The finish shall be AW Appliance White baked enamel finish. (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.

5075CTD-F, 5010CTD-F – Supply Air, Narrow Regressed T-Bar

Furnish and install **Nailor Model** (select one) **5075CTD-F** (3/4" (19) slot) or **Model 5010CTD-F** (1" (25) slot) **Ceiling Tile Slot Supply Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have an extruded aluminum face, roll-formed steel pattern controllers, and a corrosion-resistant steel plenum. The outside face of the diffuser shall incorporate 1, 2, 3, or 4 (select the quantity) discharge air slots which integrate 'ice-tong' shaped adjustable pattern controllers. The center of the diffuser must accommodate a ceiling tile (provided by the installing contractor). The steel plenum shall be easily removable and include a round inlet collar that is not less than 1 3/16" (30) high. The diffuser shall fit a 24" x 24" (610 x 610) or 600 x 600 Narrow Regressed T-Bar ceiling system. (Optional) The diffuser shall have internal insulation. The finish shall be AW Appliance White baked enamel finish. (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.

5075RCTD-F, 5010RCTD-F – Return Air, Narrow Regressed T-Bar

Furnish and install **Nailor Model** (select one) **5075RCTD-F** (3/4" (19) slot) or **Model 5010RCTD-F** (1" (25) slot) **Ceiling Tile Slot Return Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have an extruded aluminum face, and a corrosion-resistant steel plenum. The outside face of the diffuser shall incorporate 1, 2, 3, or 4 (select the quantity) return air slots to match the supply air diffuser of the same model. The center of the diffuser must accommodate a ceiling tile (provided by the installing contractor). The diffuser shall fit a 24" x 24" (610 x 610) or 600 x 600 Narrow Regressed T-Bar ceiling system. A removable light shield shall be factory installed on the rear of the diffuser. The finish shall be AW Appliance White baked enamel finish. (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 5075CTD, 5075CTD-F • 3/4" (19) Slot • Supply

	SIZE	Neck Velocity, FPM VP	200	300	400	500	600	700	800	900
			.002	.006	.010	.016	.022	.031	.040	.050

1 SLOT	8" NECK DIA.	Airflow, CFM	70	105	140	175	210	245	280	315
		TP	.017	.039	.070	.109	.156	.213	.278	.351
		T	2-3-6	3-5-10	4-7-12	5-9-14	7-11-16	8-12-17	9-13-18	10-14-19
		NC	—	12	22	28	32	36	40	43

2 SLOT	8" NECK DIA.	Airflow, CFM	70	105	140	175	210	245	280	315
		TP	.008	.019	.033	.052	.075	.102	.134	.169
		T	1-2-5	2-3-7	3-5-10	4-6-13	5-7-14	6-9-15	7-11-17	8-12-18
	10" NECK DIA.	Airflow, CFM	110	160	220	270	330	380	435	490
		TP	.017	.036	.068	.102	.153	.203	.266	.337
		T	2-4-8	3-6-11	5-8-14	6-10-16	8-13-18	9-15-20	10-16-21	11-17-22
NC	—	14	20	26	30	34	38	41		

3 SLOT	10" NECK DIA.	Airflow, CFM	110	160	220	270	330	380	435	490
		TP	.011	.024	.045	.068	.101	.136	.176	.224
		T	2-4-7	3-5-9	4-6-12	5-8-15	7-11-19	8-12-21	9-14-23	10-16-25
	12" NECK DIA.	Airflow, CFM	155	235	315	390	470	550	630	705
		TP	.020	.045	.081	.125	.181	.248	.326	.408
		T	3-5-10	5-8-14	6-10-18	8-12-21	10-16-25	12-18-26	14-19-27	15-20-28
NC	13	20	26	32	36	40	44	47		

4 SLOT	12" NECK DIA.	Airflow, CFM	155	235	315	390	470	550	630	705
		TP	.015	.034	.062	.092	.138	.189	.248	.310
		T	3-4-9	4-6-13	6-9-17	8-11-20	8-13-22	9-16-23	12-18-25	3-19-26
	14" NECK DIA.	Airflow, CFM	215	320	430	535	640	750	855	960
		TP	.027	.059	.106	.165	.236	.324	.420	.530
		T	4-6-12	6-9-18	8-12-21	10-15-23	12-18-25	14-20-27	16-21-29	17-22-31
NC	17	24	30	36	40	44	48	51		

- 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 10⁻¹² watts.

Performance Notes:

1. Horizontal throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions, using a 4-way pattern.
2. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.

Performance Data

Models 5010CTD, 5010CTD-F • 1" (25) Slot • Supply

	SIZE	Neck Velocity, FPM VP	200 .002	300 .006	400 .010	500 .016	600 .022	700 .031	800 .040	900 .050
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1 SLOT	8" NECK DIA.	Airflow, CFM	70	105	140	175	210	245	280	315
		TP	.014	.031	.055	.087	.125	.170	.221	.280
		T	2-3-6	3-5-10	4-6-12	5-8-14	6-9-15	7-11-17	8-12-18	9-14-19
		NC	—	11	18	24	28	32	36	39
	10" NECK DIA.	Airflow, CFM	110	160	220	270	330	380	435	490
		TP	.030	.064	.122	.184	.274	.364	.477	.605
		T	3-5-10	5-8-14	6-9-15	7-11-17	9-14-19	11-15-21	12-16-22	13-17-23
		NC	—	21	28	34	38	42	46	49

2 SLOT	8" NECK DIA.	Airflow, CFM	70	105	140	175	210	245	280	315
		TP	.007	.015	.027	.042	.060	.082	.106	.135
		T	1-2-4	2-3-6	3-4-9	3-5-11	4-6-13	4-7-15	5-9-16	7-11-19
		NC	—	—	—	14	18	22	26	29
	10" NECK DIA.	Airflow, CFM	110	160	220	270	330	380	435	490
		TP	.013	.027	.051	.077	.115	.153	.200	.254
		T	2-3-7	3-5-11	4-7-13	5-9-16	7-11-19	8-14-22	9-15-23	10-16-25
		NC	—	11	18	24	28	32	36	39
	12" NECK DIA.	Airflow, CFM	155	235	315	390	470	550	630	705
		TP	.023	.052	.094	.144	.210	.287	.377	.472
		T	3-5-11	5-8-15	7-11-19	8-14-21	10-16-23	12-18-25	14-18-26	15-19-28
		NC	—	17	24	30	34	38	42	45

3 SLOT	10" NECK DIA.	Airflow, CFM	110	160	220	270	330	380	435	490
		TP	.008	.018	.033	.050	.075	.099	.130	.165
		T	2-3-6	3-4-9	4-6-12	5-7-15	6-9-18	8-11-20	9-12-22	10-14-24
		NC	—	—	14	20	24	28	32	35
	12" NECK DIA.	Airflow, CFM	155	235	315	390	470	550	630	705
		TP	.014	.032	.057	.088	.128	.175	.229	.287
		T	3-4-9	4-6-13	6-9-18	8-11-20	9-13-23	10-15-25	12-18-27	13-19-28
		NC	1	15	21	27	31	35	39	42

4 SLOT	12" NECK DIA.	Airflow, CFM	155	235	315	390	470	550	630	705
		TP	.010	.024	.042	.065	.094	.129	.170	.210
		T	2-4-8	4-5-11	5-8-15	7-10-20	8-12-21	9-14-23	11-15-25	12-17-27
		NC	—	13	19	25	29	33	37	40
	14" NECK DIA.	Airflow, CFM	215	320	430	535	640	750	855	960
		TP	.017	.039	.070	.108	.154	.212	.275	.347
		T	3-5-10	5-8-15	7-10-21	9-14-23	11-16-25	13-18-28	15-19-30	17-20-32
		NC	13	20	26	32	36	40	44	47

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 10⁻¹² watts.

Performance Notes:

1. Horizontal throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions, using a 4-way pattern.

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

Performance Data

Models 5075RCTD, 5075RCTD-F • 3/4" (19) Slot • Return

No. of Slots	Neg. SP	.006	.028	.065	.110	.170	.250	.350	.465
1	CFM	70	140	210	280	350	420	490	560
	NC	—	—	16	24	30	35	39	43
2	CFM	130	260	390	520	650	780	910	1040
	NC	—	—	19	27	33	38	42	46
3	CFM	180	360	540	720	900	1080	1260	1440
	NC	—	10	21	29	35	40	44	48
4	CFM	220	440	660	880	1100	1320	1540	1760
	NC	—	10	21	29	35	40	44	48

Models 5010RCTD, 5010RCTD-F • 1" (25) Slot • Return

No. of Slots	Neg. SP	.006	.028	.065	.110	.170	.250	.350	.465
1	CFM	140	210	280	350	420	490	560	700
	NC	—	—	17	23	28	32	36	42
2	CFM	253	380	507	633	760	887	1013	1267
	NC	—	12	20	26	31	35	39	45
3	CFM	340	510	680	850	1020	1190	1360	1700
	NC	—	13	21	27	32	36	40	46
4	CFM	400	600	800	1000	1200	1400	1600	2000
	NC	—	14	22	28	33	37	41	47

CFM - cubic feet per minute

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

Neg. SP - Negative static pressure (inches w.g.)

Performance Notes:

1. Dash (—) in space indicates an NC value of less than 10.

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