

PERFORATED RETURN AIR DIFFUSERS

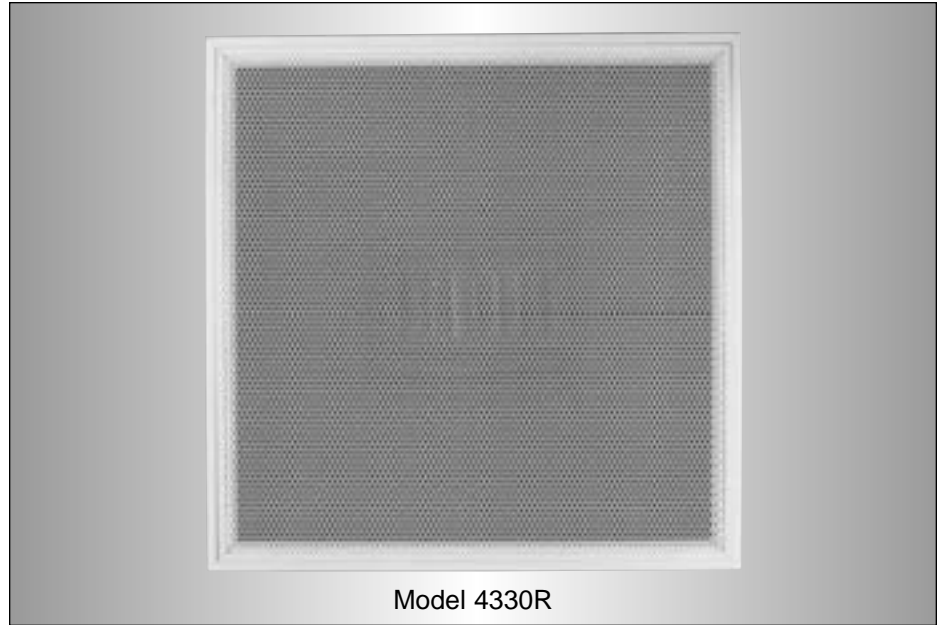
- MATCH AND COMPLIMENT SUPPLY MODELS
- PREMIUM ARCHITECTURAL QUALITY

Steel Face Model:

4330R Flush Face

Aluminum Face Model:

4330RA Flush Face



The **Nailor 4330R Series Perforated Face** return air models are designed to match supply air models **4330** and **4330CB** in appearance and construction detail, except that the air pattern controllers are not required and are omitted.

The **4330R Series** is offered in two versions. One for ducted return applications which features the same backpan as the supply air models with a neck for connection to flexible or rigid round duct or square duct. The other version features a dedicated frame assembly which has a neck that is 2" (51) less than the ceiling module size. This unit maximizes free area and may be used for ducted or ductless return air applications.

FEATURES:

- Round or square necks available.
- Hinged, removable face plate with quick-release spring latches.
- Inlet collar has minimum 1 1/4" (32) depth for easy duct connection.
- Dropping the perforated face gives access to the optional damper.
- Perforated face has 3/16" (5) diameter holes on staggered 1/4" (6) centers, providing 51% free area.

Material: Extruded aluminum border and frame, corrosion-resistant steel backpan. Corrosion-resistant steel or aluminum perforated face depending on model selection.

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

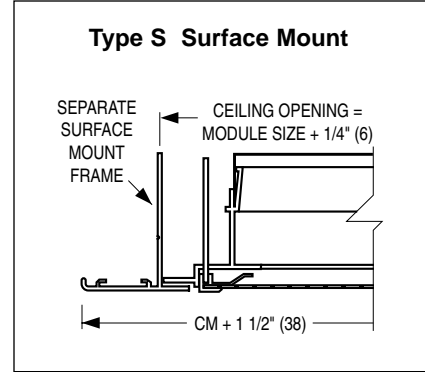
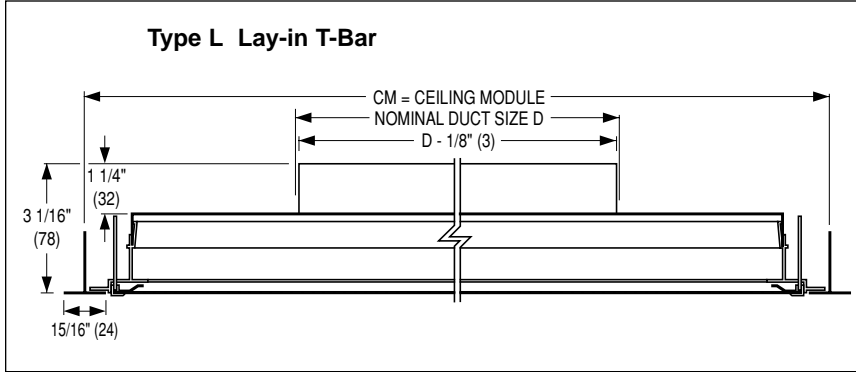
Available Combinations of Ceiling Module vs. Neck Size

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	5, 6, 7, 8	127, 152, 178, 203	6 x 6, 8 x 8, 10 x 10	152 x 152, 203 x 203, 254 x 254
24 x 12	600 x 300	5, 6, 7, 8	127, 152, 178, 203	6 x 6, 8 x 8, 18 x 6, 22 x 10	152 x 152, 203 x 203, 457 x 152, 559 x 254
16 x 16	400 x 400	5, 6, 7, 8, 10	127, 152, 178, 203, 254	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
20 x 20	500 x 500	5, 6, 7, 8, 10, 12, 14	127, 152, 178, 203, 254, 305, 356	6 x 6, 8 x 8, 10 x 10, 12 x 12, 14 x 14, 15 x 15, 16 x 16, 18 x 18	152 x 152, 203 x 203, 254 x 254, 305 x 305, 356 x 356, 381 x 381, 406 x 406, 457 x 457
24 x 24	600 x 600	6, 8, 10, 12, 14, 15, 16	152, 203, 254, 305, 356, 381, 406	6 x 6, 8 x 8, 10 x 10, 12 x 12, 14 x 14, 16 x 16, 18 x 18, 20 x 20, 22 x 22, 46 x 22	152 x 152, 203 x 203, 254 x 254, 305 x 305, 356 x 356, 406 x 406, 457 x 457, 508 x 508, 559 x 559, 1168 x 559

Dimensional Data and Frame Types

Models 4330R, 4330RA • Return • Flush Face

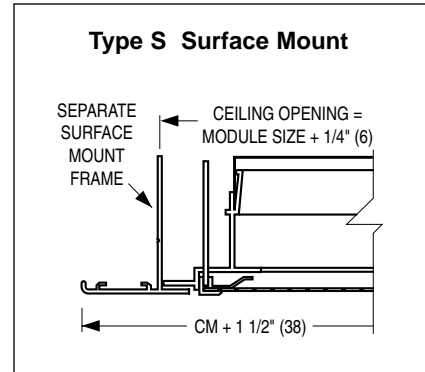
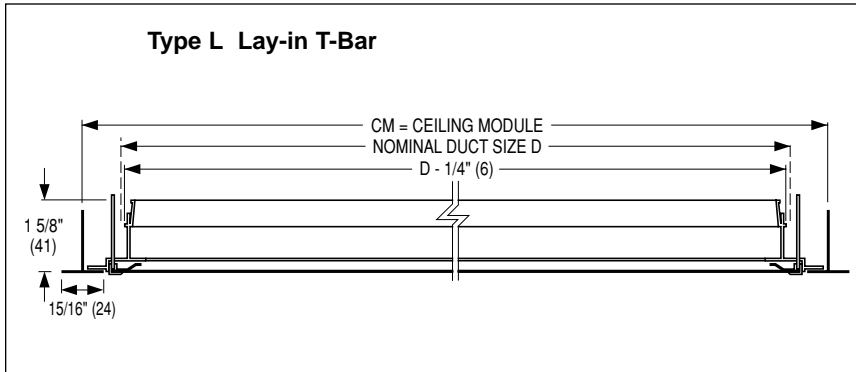
All round ducts and square ducts when duct size is less than $CM - 2"$ (51).



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Models 4330R, 4330RA • Return • Flush Face

When duct size = $CM - 2"$ (51).



CEILING DIFFUSERS

HOW TO SPECIFY OR TO ORDER

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

Premium Perforated Return Ceiling Diffusers – Model Series 4330R

4330R - 22 x 22 - 24 x 24 - L - AW - -

MODEL

- Steel Face 4330R
- Aluminum Face 4330RA

NECK SIZE (inches)

Round

05, 06, 07, 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, 15 x 15, 16 x 16,
18 x 18, 20 x 20, 22 x 22, 46 x 22

CEILING MODULE

Imperial (inches) Metric (mm)

- 12 x 12 300 x 300
- 16 x 16 250 x 250
- 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

Square Neck

- Opposed Blade Damper OBD

FINISH

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

FRAME TYPE

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

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CEILING DIFFUSERS

Note:

1. Consult individual models as to limitations and availability of ceiling module and neck size combinations.
2. If more than one accessory is required, list in order.

SUGGESTED SPECIFICATION:

Furnish and install **Nailor Model** (select one) **4330R** (corrosion-resistant steel face) or **4330RA** (aluminum face) **Premium Architectural Perforated Return Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have a corrosion-resistant steel backpan with a round or square neck, and an extruded aluminum border/frame that encapsulates the perforated face. The perforated panel shall have 3/16" (5) dia. holes on 1/4" (6) staggered centers, providing 51% free area. The face shall include spring latches allowing easy access for cleaning. 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 4330R, 4330RA • Flush Face • Return Module

Ceiling Module	Neck Size	Neck Velocity, FPM		300	400	500	600	700	800	1000	1200	1400
		Negative SP		.024	.042	.067	.096	.130	.170	.266	.383	.522
		VP		.006	.010	.016	.023	.031	.040	.063	.090	.123
12 x 12	10 x 10	Airflow, CFM	208	277	347	416	485	555	694	832	971	
		NC	—	15	22	28	33	37	44	51	57	
20 x 20	18 x 18	Airflow, CFM	675	900	1125	1350	1575	1800	2250	2700	3150	
		NC	—	17	24	30	35	39	46	53	58	
24 x 12	22 x 10	Airflow, CFM	459	612	765	918	1071	1224	1530	1836	2142	
		NC	—	17	23	29	34	39	46	53	58	
24 x 24	6" dia.	Airflow, CFM	59	78	98	118	137	157	196	235	275	
		NC	—	—	—	10	15	19	26	33	38	
	6 x 6	Airflow, CFM	75	100	125	150	175	200	250	300	350	
		NC	—	—	—	12	17	21	28	35	40	
	8" dia.	Airflow, CFM	105	140	175	209	244	279	349	419	489	
		NC	—	—	—	14	19	23	30	37	42	
	8 x 8	Airflow, CFM	133	178	222	267	311	356	444	533	622	
		NC	—	—	—	15	20	24	31	38	43	
	10" dia.	Airflow, CFM	164	218	273	327	382	436	545	654	764	
		NC	—	—	10	16	21	25	32	39	44	
	10 x 10	Airflow, CFM	208	278	347	417	486	556	694	833	972	
		NC	—	—	11	17	22	26	33	40	45	
	12" dia.	Airflow, CFM	236	314	393	471	550	628	785	942	1100	
		NC	—	—	13	19	24	28	35	42	47	
	12 x 12	Airflow, CFM	300	400	500	600	700	800	900	1200	1400	
		NC	—	—	14	20	25	29	36	43	48	
14" dia.	Airflow, CFM	321	428	535	641	748	855	1069	1283	1497		
	NC	—	—	15	21	26	30	37	44	49		
14 x 14	Airflow, CFM	408	544	681	817	953	1089	1361	1633	1906		
	NC	—	10	17	23	28	32	39	46	51		
15 x 15	Airflow, CFM	469	625	781	938	1094	1250	1563	1875	2188		
	NC	—	12	19	25	30	34	41	48	53		
16" dia.	Airflow, CFM	419	559	698	838	977	1117	1396	1676	1955		
	NC	—	10	17	23	28	32	39	46	51		
18 x 18	Airflow, CFM	675	900	1125	1350	1575	1800	2250	2700	3150		
	NC	—	16	23	29	34	38	45	52	57		
22 x 22	Airflow, CFM	1007	1344	1679	2015	2352	2688	3359	4031	4704		
	NC	—	18	25	31	36	40	47	54	59		
48 x 24	46 x 22	Airflow, CFM	2108	2811	3514	4217	4919	5622	7028	8433	9839	
		NC	11	20	27	34	38	43	50	57	62	

- CFM** - cubic feet per minute
- FPM** - feet per minute velocity
- VP** - velocity pressure - inches w.g.
- SP** - static pressure - inches w.g.
- NC** - Noise Criteria (values) based on 10 dB room absorption, re 10⁻¹² watts.

Performance Notes:

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

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CEILING DIFFUSERS