

ROUND CEILING DIFFUSERS

- ADJUSTABLE
- HORIZONTAL DISCHARGE PATTERN
- LOUVERED FACE

Models:

RNR Steel

ARNR Aluminum



Model RNR

The **Nailor RNR Series Round Ceiling Diffusers** feature three concentric cones in all sizes to offer a balanced appearance where different sizes are used in the same area. The diffusers deliver the air in a true 360° radial horizontal pattern and produce excellent performance in variable air volume systems.

The **Models RNR** and **ARNR** feature infinite horizontal discharge patterns that allow the diffusers to accommodate different flow rate conditions. Position A (cones down) provides maximum capacity at minimum NC levels while Position B (cones up) provides higher induction and more air movement.

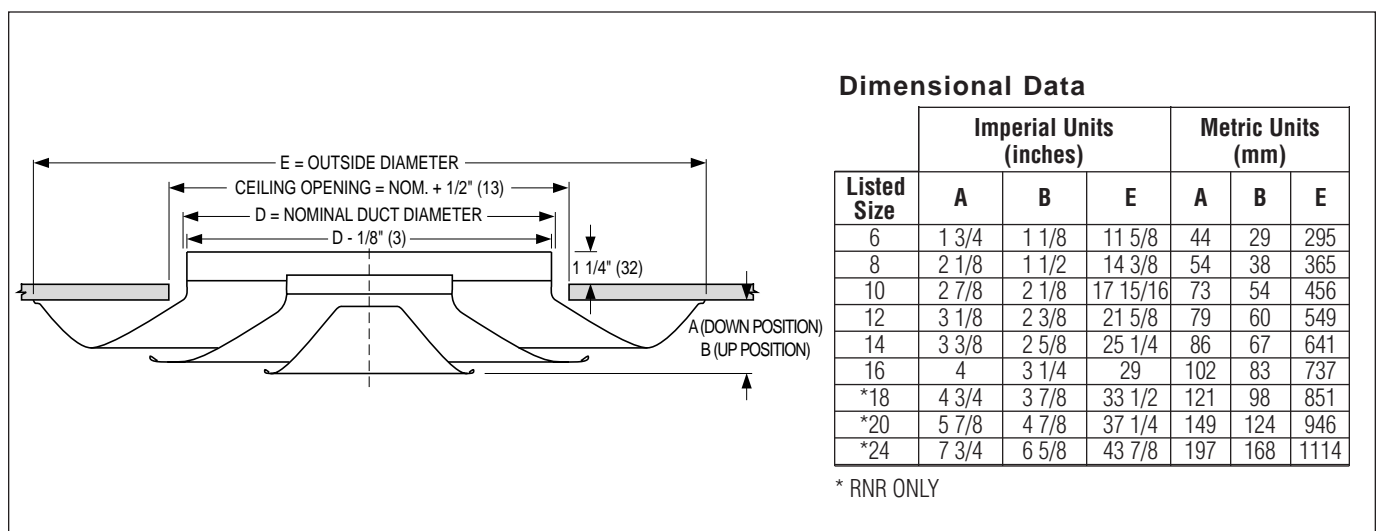
FEATURES:

- Engineered 360° air diffusion pattern.
- High neck collars for solid connection.
- All sizes feature three cones for a uniform and balanced appearance.
- A spring clip arrangement permits quick, easy installation and removal of the inner cone assembly.

- Discharge positions are easily field set by sliding the inner cone assembly up or down. The core is securely retained by a spring loaded friction arrangement.
- Designed for both heating and cooling applications.
- Screwdriver adjustment of the optional balancing damper through the cones.

Material: Corrosion-resistant steel or aluminum.

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



HOW TO SPECIFY OR TO ORDER

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

Round Ceiling Diffusers – Models RNR and ARNR

RNR - 12 - AW - -

MODEL

Steel	RNR
Aluminum	ARNR

LISTED NECK SIZE

Imperial (inches)	Metric (mm)
- 06	152
- 08	203
- 10	254
- 12	305
- 14	356
- 16	406
- 18	457
- 20	508
- 24	610

ACCESSORIES

- None (default)	—
- Safety Chain	SC
- Earthquake Tabs	EQT
- Foam Gasket	GK

AIR BALANCING DEVICES

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

FINISH

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

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CEILING DIFFUSERS

Note:

1. Model RNR is available in sizes 6" - 24" (152 x 610)
Model ARNR is available in sizes 6" - 16" (152 x 406)
2. If more than one accessory is required, list in order.

SUGGESTED SPECIFICATION:

Furnish and install **Nailor Model** (select one) **RNR** (steel) or **ARNR** (aluminum) **Round Adjustable Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall have three round spun cones. The inner core assembly shall be removable and slide up or down to attain infinite horizontal discharge pattern adjustment. The diffuser shall have a removable plug for screwdriver adjustment of the optional damper, without removing the inner core. 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 – 2006.

Performance Data Models RNR and ARNR

Nominal Neck Size	Neck Velocity, FPM VP	400	500	600	700	800	900	1000	1100	1200
		.010	.016	.022	.031	.040	.050	.062	.075	.090
6" Dia.	TP, Position A	.024	.038	.055	.074	.097	.123	.152	.184	.219
	TP, Position B	.039	.061	.088	.119	.156	.197	.243	.294	.350
	Airflow, CFM	79	98	118	137	157	177	196	216	236
	NC, Position A	—	—	15	20	24	28	31	34	37
	NC, Position B	—	16	21	26	30	34	37	40	43
	T, Position A	2-2-4	2-3-5	2-4-5	3-4-6	3-4-7	3-5-8	4-5-8	4-6-9	4-6-10
	T, Position B	3-3-5	3-4-6	3-5-6	4-5-7	4-5-8	4-6-9	5-6-9	5-7-10	5-7-12
8" Dia.	TP, Position A	.031	.048	.069	.094	.123	.156	.193	.233	.278
	TP, Position B	.049	.077	.111	.151	.198	.250	.309	.374	.445
	Airflow, CFM	140	175	209	244	279	314	349	384	419
	NC, Position A	—	—	18	23	27	31	34	37	40
	NC, Position B	—	19	24	29	33	37	40	43	46
	T, Position A	2-3-6	3-4-7	3-5-8	3-5-9	4-6-10	4-7-11	5-8-12	5-9-13	6-9-14
	T, Position B	3-4-7	4-5-8	4-6-9	4-6-10	5-7-12	5-8-13	6-9-14	6-10-15	7-10-16
10" Dia.	TP, Position A	.026	.040	.058	.079	.103	.130	.161	.194	.231
	TP, Position B	.041	.064	.093	.126	.165	.209	.257	.311	.371
	Airflow, CFM	218	273	327	382	436	491	545	600	654
	NC, Position A	—	—	17	22	26	30	33	36	39
	NC, Position B	—	18	23	28	32	36	39	42	45
	T, Position A	3-4-7	3-5-8	4-5-9	4-6-10	4-7-12	5-8-13	5-9-14	6-10-16	7-11-17
	T, Position B	4-5-9	4-6-10	5-6-11	5-7-12	5-9-14	6-10-15	6-11-16	7-12-18	8-13-19
12" Dia.	TP, Position A	.025	.039	.056	.076	.100	.126	.156	.189	.225
	TP, Position B	.040	.063	.090	.123	.160	.203	.250	.303	.360
	Airflow, CFM	314	393	471	550	628	707	785	864	942
	NC, Position A	—	—	16	21	25	29	32	35	38
	NC, Position B	—	17	22	27	31	35	38	41	44
	T, Position A	3-5-9	4-6-10	4-7-11	5-8-13	5-8-14	6-10-16	7-11-18	8-12-19	9-13-21
	T, Position B	4-6-10	5-7-12	5-8-13	6-9-15	6-10-17	7-12-18	8-13-21	9-14-22	10-15-24
14" Dia.	TP, Position A	.034	.053	.077	.105	.137	.173	.214	.259	.308
	TP, Position B	.055	.086	.123	.168	.219	.278	.343	.415	.494
	Airflow, CFM	428	535	641	748	855	962	1069	1176	1283
	NC, Position A	—	16	22	27	31	35	38	41	44
	NC, Position B	—	22	27	32	36	40	43	46	49
	T, Position A	4-6-10	4-7-12	5-8-14	6-9-16	7-10-18	8-12-20	9-13-22	10-15-24	10-16-26
	T, Position B	5-7-11	5-8-14	6-9-16	7-10-18	8-11-20	9-13-22	10-15-25	11-17-27	12-18-30
16" Dia.	TP, Position A	.031	.049	.071	.096	.125	.159	.196	.237	.282
	TP, Position B	.050	.079	.113	.154	.201	.254	.314	.380	.452
	Airflow, CFM	559	698	838	977	1117	1257	1396	1536	1676
	NC, Position A	—	15	21	25	29	33	36	39	42
	NC, Position B	—	19	24	29	33	37	40	43	46
	T, Position A	4-7-12	5-8-14	6-9-16	7-11-18	8-12-20	9-13-22	10-14-24	11-16-26	12-17-28
	T, Position B	5-7-13	6-9-16	7-10-18	8-12-20	9-13-22	10-14-24	11-15-26	12-18-29	13-19-31
18" Dia.	TP, Position A	.028	.045	.064	.087	.114	.144	.178	.215	.256
	TP, Position B	.046	.071	.103	.140	.183	.231	.286	.346	.411
	Airflow, CFM	707	884	1060	1237	1414	1590	1767	1944	2121
	NC, Position A	—	—	19	24	28	32	35	38	41
	NC, Position B	—	17	22	27	31	35	38	41	44
	T, Position A	5-7-13	6-9-16	7-11-18	8-12-20	9-14-23	10-15-25	12-17-27	13-18-29	14-20-31
	T, Position B	6-8-15	7-10-18	8-12-20	9-13-22	10-15-25	11-17-29	13-19-30	14-20-32	15-21-34
20" Dia.	TP, Position A	.028	.044	.063	.086	.112	.142	.175	.212	.252
	TP, Position B	.045	.070	.101	.138	.180	.228	.281	.340	.405
	Airflow, CFM	873	1091	1309	1527	1745	1963	2182	2400	2618
	NC, Position A	—	—	20	25	29	33	36	39	42
	NC, Position B	—	18	23	28	32	36	39	42	45
	T, Position A	5-9-15	7-10-18	8-12-20	9-14-23	10-15-26	12-17-28	13-19-30	14-21-33	15-23-35
	T, Position B	6-10-17	8-11-20	9-13-22	10-15-25	11-16-28	13-18-30	14-20-32	15-22-35	16-25-38

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