

## ROUND CEILING DIFFUSERS

- ADJUSTABLE HORIZONTAL/ VERTICAL AIRFLOW PATTERN
- ALUMINUM

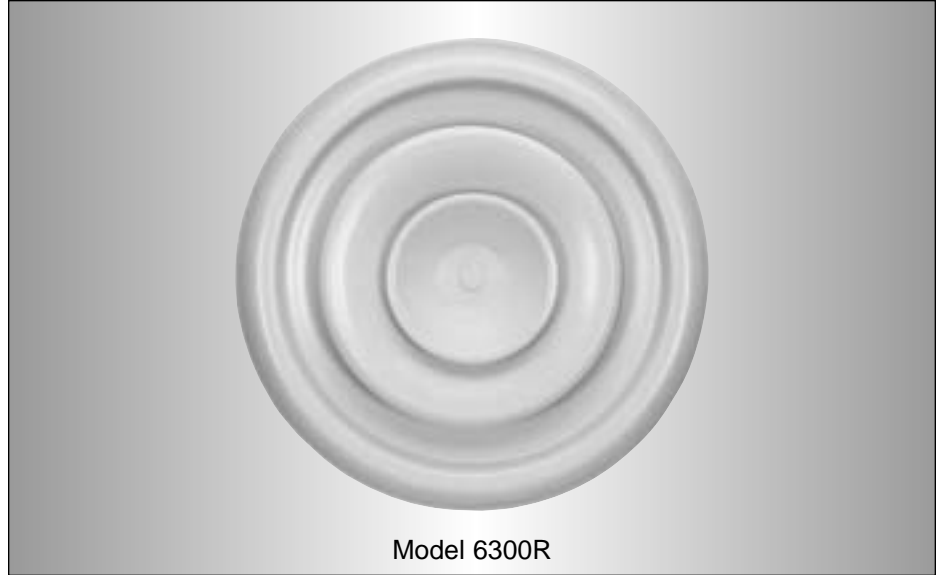
### Models:

**6300**

Two Position Adjustment

**6300R**

Continuous Rotary Adjustment



Model 6300R

The Nailor 6300 Series Round Ceiling Diffusers are available in a comprehensive range of sizes with a capacity ranging from 50 to 5000 cfm (24 – 2360 l/s). They are suitable for both cooling and heating applications. With three concentric cones in all sizes they offer the same balanced appearance when different sizes are used in the same zone. They feature a 360° air diffusion pattern and provide excellent performance in variable air volume systems.

**Model 6300** is fixed in either an "UP" or a "DOWN" position that is easily adjusted by lifting and rotating the center core. An optional round opposed blade damper is screwdriver-operated through the face of the unit. The **Model 6300** has a 2-position core to guide vertical or horizontal projection of the air.

**Model 6300R** provides 3/4" (19) adjustability through utilization of a threaded mechanism. The "UP" position of the core provides vertical throw, and the "DOWN" position provides horizontal throw. The core is easily adjusted by rotating the center cone. An optional round opposed blade damper is screwdriver-operated through the face of the unit. The **Model 6300R** has a fully adjustable core to guide vertical or horizontal projection of the air.

**Material:** Spun aluminum.

**Finish:** AW Appliance White finish (standard).  
AL Aluminum (option).

**6300R**

**Notes:**  
 1/4" (6) oversize duct fits outside collar, if desired.  
 A = Inside diameter of diffuser neck.  
 C = Projection of diffuser outer cone below ceiling.  
 D = Overall diameter of diffuser.

**Dimensional Data**

Listed Size	Imperial Units (inches)			Metric Units (mm)		
	A	C	D	A	C	D
6	6 1/8	3/4	12 1/8	156	19	308
8	8 1/8	1	15 1/2	206	25	394
10	10 1/8	1 1/4	18 7/8	257	32	479
12	12 1/8	1 3/8	22 1/4	308	35	565
14	14 1/8	1 9/16	25 5/8	358	40	651
16	16 1/8	1 3/4	29	410	44	737
18	18 1/8	1 15/16	32 3/8	460	49	822
20	20 1/8	2 1/8	35 3/4	511	54	908
24	24 1/8	2 1/2	42 1/2	613	64	1080

## HOW TO SPECIFY OR TO ORDER

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

### Aluminum Round Ceiling Diffusers – Model Series 6300

6300R - 12 - AW - -

#### MODEL

Aluminum:

- Two Position 6300
- Rotating Fully Adjustable 6300R

#### 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

#### AIR BALANCING DEVICES

- Radial Opposed Blade Damper 4275
- Equalizing Grid EGR
- Damper/Equalizing Grid DEGR

#### FINISH

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

D  
CEILING DIFFUSERS

#### Note:

1. If more than one accessory is required, list in order.

#### SUGGESTED SPECIFICATION:

##### 6300 – Two Position

Furnish and install **Nailor Model 6300 Aluminum 2-Position Round Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall be all aluminum construction and incorporate three round cones that have been spun. A fixed, two-position core shall be easily adjusted either in an up or down position. 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 – 1991.

##### 6300R – Rotating Fully Adjustable

Furnish and install **Nailor Model 6300R Aluminum Adjustable Round Ceiling Diffusers** of the sizes and capacities as shown on the plans and air distribution schedules. The diffuser shall be all aluminum construction and incorporate three round cones that have been spun. The diffuser shall be easily adjusted by rotating the inner core either in an up or down position. 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 – 1991.

## Performance Data

### Models 6300 and 6300R

**D**  
**CEILING DIFFUSERS**

Listed Neck Size	Neck Velocity, FPM VP	400	500	600	700	800	900	1000	1200	1400	1600
6	TP	.024	.037	.056	.071	.092	.112	.138	.197	.272	.345
	Airflow, CFM	<b>80</b>	<b>100</b>	<b>120</b>	<b>140</b>	<b>160</b>	<b>180</b>	<b>200</b>	<b>235</b>	<b>275</b>	<b>315</b>
	RD	2-5	3-5	4-6	4-7	5-7	6-8	6-9	6-9	7-10	7-10
	NC	—	—	12	17	21	25	28	34	39	41
8	TP	.033	.049	.068	.095	.122	.155	.192	.270	.362	.470
	Airflow, CFM	<b>140</b>	<b>175</b>	<b>210</b>	<b>245</b>	<b>280</b>	<b>315</b>	<b>350</b>	<b>420</b>	<b>490</b>	<b>560</b>
	RD	3-7	4-8	5-8	6-9	7-10	8-10	9-11	8-12	9-13	10-14
	NC	—	—	14	19	23	27	30	36	41	44
10	TP	.041	.062	.098	.121	.157	.200	.245	.350	.477	.610
	Airflow, CFM	<b>220</b>	<b>270</b>	<b>330</b>	<b>380</b>	<b>435</b>	<b>490</b>	<b>545</b>	<b>655</b>	<b>765</b>	<b>870</b>
	RD	4-9	5-10	7-11	8-11	9-12	9-13	10-14	11-15	11-16	12-17
	NC	—	10	16	21	25	29	32	38	43	46
12	TP	.043	.066	.093	.127	.165	.206	.249	.355	.482	.620
	Airflow, CFM	<b>315</b>	<b>390</b>	<b>470</b>	<b>550</b>	<b>630</b>	<b>705</b>	<b>785</b>	<b>940</b>	<b>1100</b>	<b>1255</b>
	RD	5-10	7-12	8-13	9-14	10-15	11-16	12-16	13-18	14-19	15-21
	NC	—	12	18	23	27	31	34	40	45	48
14	TP	.041	.061	.087	.118	.150	.190	.337	.325	.442	.560
	Airflow, CFM	<b>425</b>	<b>530</b>	<b>635</b>	<b>745</b>	<b>850</b>	<b>955</b>	<b>1060</b>	<b>1270</b>	<b>1490</b>	<b>1695</b>
	RD	6-13	8-14	10-15	11-16	12-17	13-19	14-19	15-21	16-22	17-24
	NC	—	15	21	26	30	34	37	43	48	51
16	TP	.043	.060	.093	.127	.153	.206	.252	.350	.482	.580
	Airflow, CFM	<b>560</b>	<b>700</b>	<b>840</b>	<b>980</b>	<b>1120</b>	<b>1260</b>	<b>1400</b>	<b>1680</b>	<b>1960</b>	<b>2240</b>
	RD	6-12	7-13	9-15	10-16	12-17	13-18	13-18	14-20	16-22	18-24
	NC	—	16	22	27	31	35	38	44	49	52
18	TP	.044	.068	.097	.130	.167	.214	.253	.370	.492	.630
	Airflow, CFM	<b>710</b>	<b>885</b>	<b>1060</b>	<b>1240</b>	<b>1420</b>	<b>1590</b>	<b>1770</b>	<b>2120</b>	<b>2480</b>	<b>2830</b>
	RD	7-16	10-18	12-19	14-21	16-22	17-23	18-24	19-27	21-29	22-31
	NC	—	17	23	28	32	36	39	45	50	53
20	TP	.045	.069	.099	.135	.170	.215	.262	.375	.512	.645
	Airflow, CFM	<b>875</b>	<b>1100</b>	<b>1310</b>	<b>1530</b>	<b>1750</b>	<b>1970</b>	<b>2190</b>	<b>2610</b>	<b>3060</b>	<b>3500</b>
	RD	8-18	11-19	14-21	15-23	17-24	18-26	19-27	21-30	23-32	24-34
	NC	10	18	24	29	33	37	40	46	51	54
24	TP	.043	.066	.095	.131	.170	.215	.267	.360	.407	.660
	Airflow, CFM	<b>1260</b>	<b>1570</b>	<b>1880</b>	<b>2200</b>	<b>2510</b>	<b>2820</b>	<b>3140</b>	<b>3770</b>	<b>4400</b>	<b>5020</b>
	RD	10-21	13-23	16-25	18-28	21-29	22-31	25-36	25-36	28-39	29-42
	NC	12	19	25	30	34	38	41	47	52	55

**CFM** - cubic feet per minute

**FPM** - feet per minute velocity

**TP** - total pressure - inches w.g.

**VP** - velocity pressure - inches w.g.

**RD** - radius of diffusion in feet, isothermal

**NC** - Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.

**Performance Notes:**

1. Radius of diffusion values are given at 100 and 50 fpm terminal velocities under isothermal conditions.

2. Performance data as shown is for the diffuser only, with the cones in the "down" position. Performance for the cones in the "up" position can be approximated by multiplying the total pressures by 1.6, adding 5 NC to the sound levels, and multiplying the radius of diffusion by .90.

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

Listed Size	Ak Factor
<b>6</b>	.120
<b>8</b>	.200
<b>10</b>	.310
<b>12</b>	.440
<b>14</b>	.570
<b>16</b>	.785
<b>18</b>	.990
<b>20</b>	1.220
<b>24</b>	1.770