

# SQUARE DIFFUSERS



## MODELS DF4, DF4D, DF4I, & DA4 4 CONE DIFFUSERS

MODEL DF4 - Fixed horizontal pattern

MODEL DF4D - Fixed horizontal pattern, 2" high collar

MODEL DF4I - Fixed horizontal pattern, Insulated

MODEL DA4 - Adjustable horizontal pattern

Airvector's 4 Cone Supply Diffusers are recommended for heating, ventilating, and cooling. The DF4, DF4D, and DA4 integrated round-neck-to-square-face construction provides a 360° horizontal air diffusion pattern similar to a full round diffuser. The DA4 diffuser allows independent adjustable horizontal deflection. The DF4I is supplied with R6 insulation and does not include an integrated collar. R4 and R6 are optional for DF4, DF4D, and DA4.

High diffusion induction rates result in rapid temperature and velocity equalization of the mixed air mass well above the zone of occupancy. Horizontal performances assure confident use of cooling temperature of 30°F and greater at predicted low air motion of 35 fpm in the zone of occupancy. DF4 Supply Diffusers perform efficiently with air loadings of 6 to 30 air changes per hour (based on 10ft. ceiling height), and sound level range of NC 25 to 35.

### FEATURES

- Full face 24" x 24" for all neck sizes.  
(12" x 12" face available in 3 cone only)
- Heavy-gauge all-steel construction
- DF4D available with 2" high neck
- Powder paint coating - White (Custom finishes avail.)
- Matching N4 and N5 OBDs available
- Screw driver adjustment of OBD through diffuser face.

Listed Size	Neck Dia	Nominal Face Size	Overall Face Size "B"	Drywall Ceiling Opening
2406	6	24 x 24	23 <sup>3</sup> / <sub>4</sub> x 23 <sup>3</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>2</sub> x 22 <sup>1</sup> / <sub>2</sub>
2408	8	24 x 24	23 <sup>3</sup> / <sub>4</sub> x 23 <sup>3</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>2</sub> x 22 <sup>1</sup> / <sub>2</sub>
2410	10	24 x 24	23 <sup>3</sup> / <sub>4</sub> x 23 <sup>3</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>2</sub> x 22 <sup>1</sup> / <sub>2</sub>
2412	12	24 x 24	23 <sup>3</sup> / <sub>4</sub> x 23 <sup>3</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>2</sub> x 22 <sup>1</sup> / <sub>2</sub>
2414*	14	24 x 24	23 <sup>3</sup> / <sub>4</sub> x 23 <sup>3</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>2</sub> x 22 <sup>1</sup> / <sub>2</sub>

\* Only available with DF4 and DA4

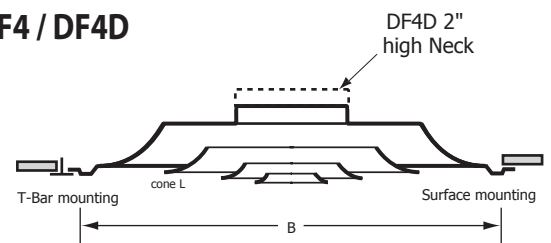


DF4

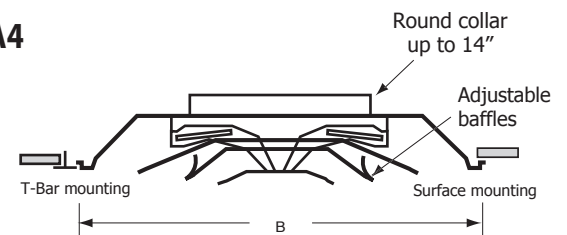
### HANDY FEATURES:

- Compatible with Airvector's exclusive Easy Install Plaster Frame - model PF.
- Core is easily removable without tools to facilitate access to duct
- One standard model suits both T-Bar and Drywall installations using rigid ducts

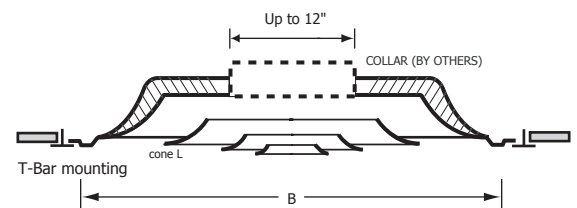
### DF4 / DF4D



### DA4



### DF4I



# ENGINEERING PERFORMANCE DATA

MODEL DF4, DF4D, DA4, & DF4I

4 CONE



24" x 24" face

SIZE (inches)	Neck Velocity (fpm)	400	500	600	700	800	1000	1200	1400	1600
	Velocity Pressure (in H <sub>2</sub> O)	.010	.016	.022	.031	.041	.062	.090	.122	.160
6	CFM	78	98	118	137	157	196	235	274	313
	Total Pressure	.02	.03	.04	.05	.07	.10	.14	.19	.24
	NC	< 20	< 20	< 20	< 20	< 20	22	28	32	36
	Throw (ft)	1-2-4	1-3-4	2-3-5	2-3-6	3-4-7	4-6-8	5-7-10	6-9-11	7-9-12
8	CFM	140	175	209	244	279	349	419	489	559
	Total Pressure	.02	.03	.04	.05	.08	.10	.15	.20	.25
	NC	< 20	< 20	< 20	< 20	< 20	26	31	36	41
	Throw (ft)	2-3-5	2-3-7	3-4-8	3-5-8	4-6-9	5-7-11	6-9-13	7-10-14	8-11-17
10	CFM	218	273	327	382	436	545	654	763	872
	Total Pressure	.02	.03	.04	.05	.08	.12	.17	.24	.30
	NC	< 20	< 20	< 20	< 20	< 20	22	29	34	38
	Throw (ft)	3-4-6	4-5-8	4-6-10	5-7-12	6-8-14	7-9-15	8-11-16	9-12-17	10-13-19
12	CFM	314	393	471	550	628	785	941	1099	1246
	Total Pressure	.02	.04	.05	.07	.09	.14	.20	.27	.36
	NC	< 20	< 20	< 20	20	23	39	36	41	46
	Throw (ft)	4-5-9	5-6-10	6-7-11	6-8-13	7-9-15	8-11-18	10-13-21	12-16-22	13-18-21
14	CFM	492>	615	738	861	984	1230	1476	1722	1968
	Total Pressure	.03	.04	.06	.08	.10	.18	.23	.30	.40
	NC	< 20	< 20	< 20	21	25	33	38	43	48
	Throw (ft)	4-6-10	5-6-11	6-8-14	7-10-16	8-11-18	10-14-20	12-16-22	14-19-24	15-20-26

NC Value based on 10 db room attenuation.

Throw Values are based on isothermal air and terminal velocities of 150 fpm, 100 fpm & 75 fpm respectively.

Total Pressure the sum of static pressure plus velocity pressure and is given in inches w.g.

## HOW TO ORDER DF3 & DF4 SERIES

**DF4-R4-S-W3 2408 /W**

### MODEL SERIES

- 3 Cone Fixed **DF3**
- 3 Cone Fixed, 2" Neck, ... Single-Box **DF3D**
- 3 Cone Adjustable **DA3**
- 4 Cone Fixed **DF4**
- 4 Cone Fixed, 2" Neck, ... Single-Box **DF4D**
- 4 Cone Adjustable **DA4**

### INSULATION (OPTIONAL)

- Standard is uninsulated
- R4.2 Taped Insulation **-R4**
- R6 Taped Insulation **-R6**

### PACKAGING (OPTIONAL)

- Standard is 2 per box
- Single Box **-S**

*FINISH (OPTIONAL)*  
Standard is White (**/W**)  
See chart for more

*NECK DIAMETER*  
In Inches  
**06-08-10-12-14"**

*FACE DIMENSIONS*  
12" x 12" **12**  
24" x 24" **24**

*DIRECTION (OPTIONAL)*  
Standard is 4 Way

- 1 Way **-W1**
- 2 Way Corner **-WC**
- 2 Way Opposed **-WO**
- 3 Way **-W3**

## HOW TO ORDER DF4I & DF3I

**DF4I-S /W**

### MODEL SERIES

- 3 Cone **DF3I**
- 4 Cone **DF4I**

### PACKAGING (OPTIONAL)

- Standard is 2 per box
- Single Box **-S**

*FINISH (OPTIONAL)*  
Standard is White (**/W**)  
See chart for more