

# SQUARE DIFFUSERS



Rev. 6

## 4 CONE DIFFUSERS

Efficient, Quiet & Uniform Air Distribution

### PRODUCT MODELS

Steel Construction

**DF4** – Fixed horizontal pattern

**DF4D** – Fixed horizontal pattern with 2" high neck

**DF4I** – Insulated (-R6 standard) - Pre-scored for collars

**DA4** – Adjustable horizontal air pattern

**DA4D** – Adjustable horizontal pattern with 2" high neck

Aluminum Construction

**ADF4** – Aluminum version of DF4

**ADF4D** – Aluminum version with 2" high neck

**ADF4I** – Aluminum insulated - Pre-scored for collars

**ADA4** – Aluminum adjustable horizontal pattern

**ADA4D** – Aluminum adjustable pattern with 2" high neck

The Airvector® 4-cone is a complete line of square 4-cone ceiling diffusers designed for efficient, quiet, and uniform air distribution in heating, ventilating, and air-conditioning applications. Available in painted steel or aluminum construction, the DF4 Series allows designers and engineers to select the optimal material based on performance, weight, or corrosion-resistance requirements.

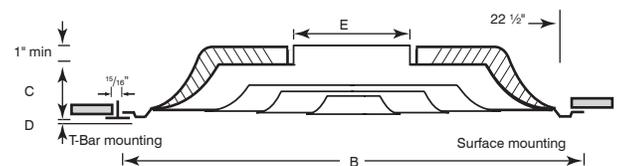
Featuring an integrated round-neck-to-square-face design, 4-cone diffusers deliver a true 360° horizontal air pattern comparable to round diffusers, while maintaining the clean architectural appearance of a 24"x24" square ceiling outlet. High-induction performance ensures rapid temperature and velocity equalization well above the occupied zone, enabling reliable cooling differentials up to 30° at low air motion levels.

The DF4 Series performs efficiently with air loadings of 6 to 30 air changes per hour (based on a 10 ft ceiling height), within a sound level range of NC 25 to 35, making it suitable for comfort-driven commercial and institutional spaces.

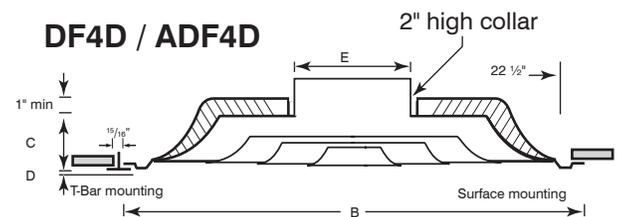


**DF4**

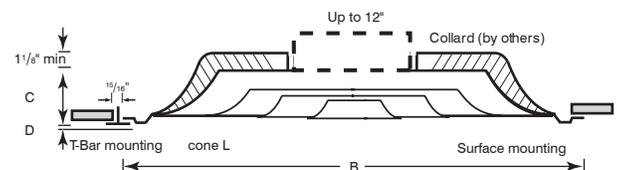
### DF4 / ADF4



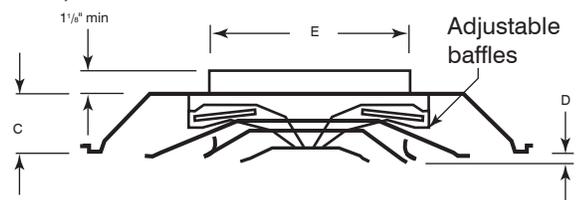
### DF4D / ADF4D



### DF4I / ADF4I



### DA4 / ADA4



# SQUARE DIFFUSERS



Rev. 1

## DF4/ADF4 - DA4/ADA4 SERIES 4 CONE DIFFUSERS

### HOW TO ORDER DF4/ADF4 - DA4/DAD4 SERIES

### Efficient, Quiet & Uniform Air Distribution

#### KEY FEATURES (ALL MODELS)

- **High Induction Air Distribution**

4-cone design ensures rapid air mixing and uniform temperature distribution.

- **360° Horizontal Air Pattern**

Even air diffusion across the ceiling plane for consistent coverage.

- **Quiet Operation**

Engineered for low sound levels in comfort-driven environments.

- **Steel or Aluminum Heavy-Gauge Construction**

Available in painted steel or aluminum to meet performance or corrosion-resistance requirements.

- **Universal Ceiling Compatibility**

One standard model suits both T-bar and drywall installations using rigid ducts; compatible with Airvector **PF** Easy Install Frame.

- **Service-Friendly Design**

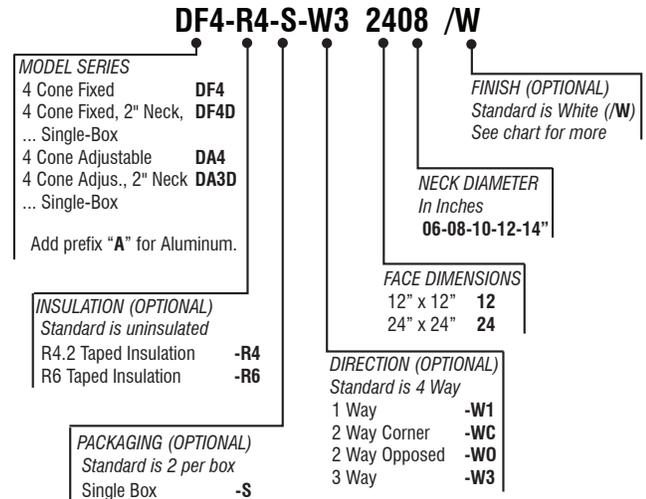
Tool-free removable core allows easy access to duct and damper.

#### OPTIONS & ACCESSORIES

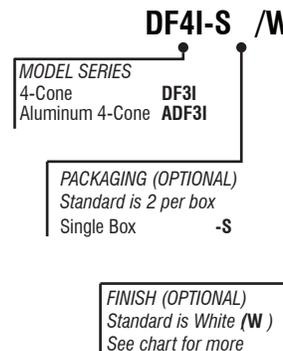
- Standard white powder-coated finish; custom colors available.
- Optional **-R4** or **-R6** insulation (**-R6** standard on **DF4I** / **ADF4I**)
- Compatible **N4** / **N5** opposed blade dampers, adjustable from the face.
- **PF** Easy Install Frame for drywall ceilings.
- Single-box packaging.

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

\* Only available with DF4 and DA4



### HOW TO ORDER DF4I/ADF4I



**DF4, DF4D, DF4I, DA4, DA4D (steel)**  
**ADF4, ADF4D, ADF4I, ADA4, ADA4D (aluminum)**  
**4-Cone Diffusers**

**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	< 20	22	28	32
	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.