

## ALUMINUM DISCHARGE GRILLE FOR VERTICAL HI-RISE FAN COIL UNITS

### DOUBLE DEFLECTION ADJUSTABLE

### MODEL SERIES: 39VH AND 39L

#### Model 51DV Vertical Front Blades

Double Deflection Supply Grilles and Registers are recommended for application in systems requiring maximum flexibility. The front set of blades has the greatest effect on the air pattern. Vertical front blades control the spread and throw distance of the air pattern. Horizontal rear blades control the rise and drop of the air pattern, typically directing warm air downwards or cool air upwards along the ceiling.

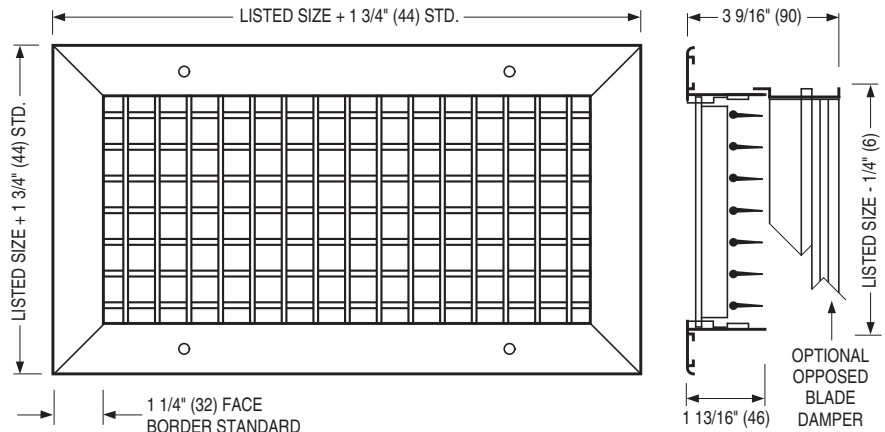
The combination of streamlined 'teardrop' shaped blades and 3/4" (19) spacing maintains a high effective free area average capacity of 75%, which minimizes outlet velocity, reduces pressure drop and assures quiet operation.

#### FEATURES:

- High quality extruded aluminum construction.
- 1 1/4" (32) wide face border with a 1" (25) overlap margin standard, furnished with countersunk screw holes and mounting screws.
- Rigid, heavy gauge extruded frames with reinforced mitered corners.
- Streamlined shaped extruded blades on 3/4" (19) centers. Blades positively hold deflection setting under all conditions of velocity and pressure.

- Adjustable air pattern - Blades are friction pivoted and easily adjusted to provide desired spread or deflection.
- An optional opposed blade damper is required on one supply grille for units with double supply outlets and on two supply grilles for units with three supply outlets for field balancing.
- Grilles are shipped loose for field installation unless integral full cover panels are specified (optional).

- For "top outlet" fan coil units which are ducted to a discharge grille at a remote location(s), Model 51DV Grilles and Model 51DV-O Registers are available in sizes from 4" x 4" to 48" x 36" (102 x 102 to 1219 to 914) to suit airflow capacity and performance requirements.
- AW Appliance White powder coat baked enamel finish is standard. Other finishes are available.



#### Performance Data

Unit	Nominal	Single Supply			Double Supply			Triple Supply				
		Size	CFM	W x H	Throw	NC	W x H	Throw	NC	W x H	Throw	NC
3	360											
5	550	16 x 10 (406 x 254)		10-16-30	<20	16 x 10 (406 x 254)	8-12-24	<20				
6	600			18-27-38	<20		9-15-29	<20				
				20-29-40	<20							
8	900	18 x 10 (457 x 254)		27-33-46	27	18 x 10 (457 x 254)	14-20-33	<20				
10	1000			28-34-48	30		15-22-34	<20				
12	1250	22 x 10 (559 x 254)		33-40-57	32	22 x 10 (559 x 254)	19-29-41	<20	22 x 10 (559 x 254)	11-18-33	<20	
15	1500			37-45-64	37		22-31-45	<20		13-21-37	<20	
19	1900	28 x 10 (711 x 254)		40-49-70	37	28 x 10 (711 x 254)	24-35-49	<20	28 x 10 (711 x 254)	14-22-40	<20	
21	2150			43-53-75	41		26-38-52	<20		17-26-43	<20	

#### NOTES:

1. Performance data is based on double deflection grille without optional opposed blade damper. Data is for grille only and does not include fan coil unit sound.
2. Double and triple supply grilles may be ordered the same size (as shown) or smaller than single supply grille.
3. NC corrections for open damper and blade deflection:  
Without damper: 22 1/2° + 2 NC, 45° + 7 NC.  
With damper: 22 1/2° + 6 NC, 45° + 11 NC.

(A throttling damper may add an additional 5 – 10 NC)

4. Throws are given for terminal velocities of 150, 100 and 50 fpm under isothermal conditions at 0° deflection
5. Throw corrections for blade deflection:  
22 1/2° Multiply listed throw values by x 0.80  
45° Multiply listed throw values by x 0.50
6. Data derived from tests conducted in accordance with ASHRAE Standard 70-2006.

#### SCHEDULE TYPE:

#### PROJECT:

#### ENGINEER:

#### CONTRACTOR:

Dimensions are in inches (mm).

DATE

B SERIES

SUPERSEDES

DRAWING NO.

8 - 20 - 08

39

NEW

39VH/L-3