



# ALUMINUM FLOOR "SWIRL" DIFFUSERS

## ROUND • SIZE 8 AND 10

### UNDERFLOOR AIR DISTRIBUTION SYSTEMS

#### MODELS: ANFD, ANFD-VAV

### Performance Data

Size	Airflow, cfm	40	50	60	70	80	90	100	110	120
8	Plenum Pressure	.014	.021	.031	.042	.054	.069	.085	.103	0.122
	Vertical Projection, ft. @ 150, 100, 50 fpm	< .5	< .5	1.0-1.5-2.0	2.0-2.5-3.0	2.5-2.5-3.0	2.5-3.0-4.0	3.0-3.5-4.5	3.0-4.0-5.0	3.5-4.0-5.0
	Horizontal Spread, ft. @ 150, 100, 50 fpm	1.0-1.5-2.0	2.0-2.0-2.5	1.5-2.0-4.5	2.0-2.5-5.5	2.0-2.5-6.0	1.5-2.0-6.5	1.0-1.5-6.5	1.0-1.5-6.5	1.0-1.5-7.0
	NC	-	-	-	-	-	-	15	18	20
10	Airflow, cfm	55	70	85	100	115	130	145	160	175
	Plenum Pressure	0.012	0.019	0.028	0.039	0.052	0.066	0.082	0.100	0.119
	Vertical Projection, ft. @ 150, 100, 50 fpm	1.0-1.0-1.5	1.0-1.5-2.5	1.0-1.5-2.5	1.5-1.5-2.5	1.5-2.0-3.0	1.5-2.0-3.5	2.0-3.0-5.0	2.5-3.5-5.0	3.0-3.5-6.0
	Horizontal Spread, ft. @ 150, 100, 50 fpm	1.0-1.5-1.5	1.0-1.0-2.5	1.5-1.5-2.5	2.0-2.0-2.5	2.0-2.0-3.0	2.0-2.0-3.5	2.0-2.5-3.5	2.0-2.5-3.5	2.5-3.0-4.0
	NC	-	-	-	-	-	15	18	21	26

### Selection Data

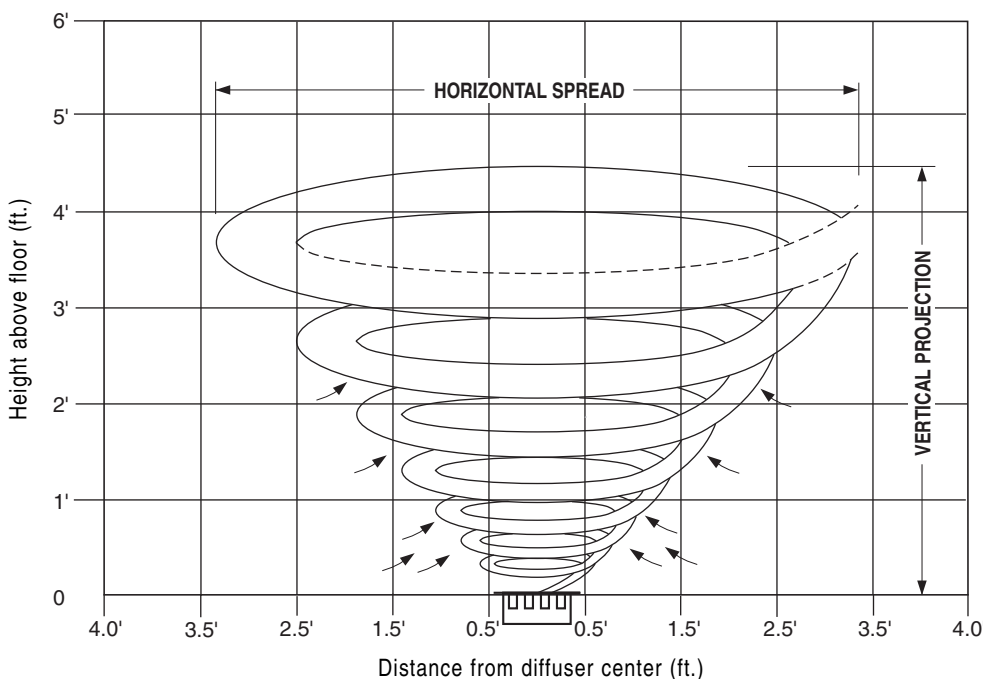
Size	Plenum Pressure	.03	.04	.05	.06	.07	.08	.09	.10	.11
8	Airflow, cfm	59	69	77	84	91	97	103	108	114
10	Airflow, cfm	88	101	113	124	134	143	152	160	168

### Correction Factors for other supply air temperature differentials.

ΔT (°F)	-6	-8	-10	-12	-14	-16
Projection, ft.	x 1.33	x 1.11	x 1.00	x 0.96	x 0.92	x 0.91
Spread, ft.	x 0.87	x 0.94	x 1.00	x 1.06	x 1.11	x 1.16

### Performance Notes:

- Projection and Spread data were determined in a room with a 11' ceiling height and 10°F ΔT, between supply air and averaged occupied room temperature.
- Vertical projection (throw) is the maximum height above the floor where terminal velocities of 150, 100 and 50 fpm were observed. Horizontal Spread is the total width of the isovel where terminal velocities of 150, 100 and 50 fpm were observed.
- Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts. Dash (-) in space denotes an NC value of less than 15.
- Pressure is in inches w.g..
- Tests conducted with dirt basket/damper installed. Damper fully open. Size 8 Ak = 0.104. Size 10 Ak = 0.142.
- Data derived from independent tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1996.



**ANFD Size 8 High induction "Swirl" Pattern. 100 cfm supply @10°F ΔT. Outline indicates maximum room air velocity of 50 fpm.**

### SCHEDULE TYPE

### PROJECT

### ENGINEER

### CONTRACTOR

Dimensions are in inches (mm).

### DATE

### B SERIES

### SUPERSEDES

### DRAWING NO.

1 - 20 - 11

NFD

2 - 26 - 04

ANFD-2