

# MODEL RFD

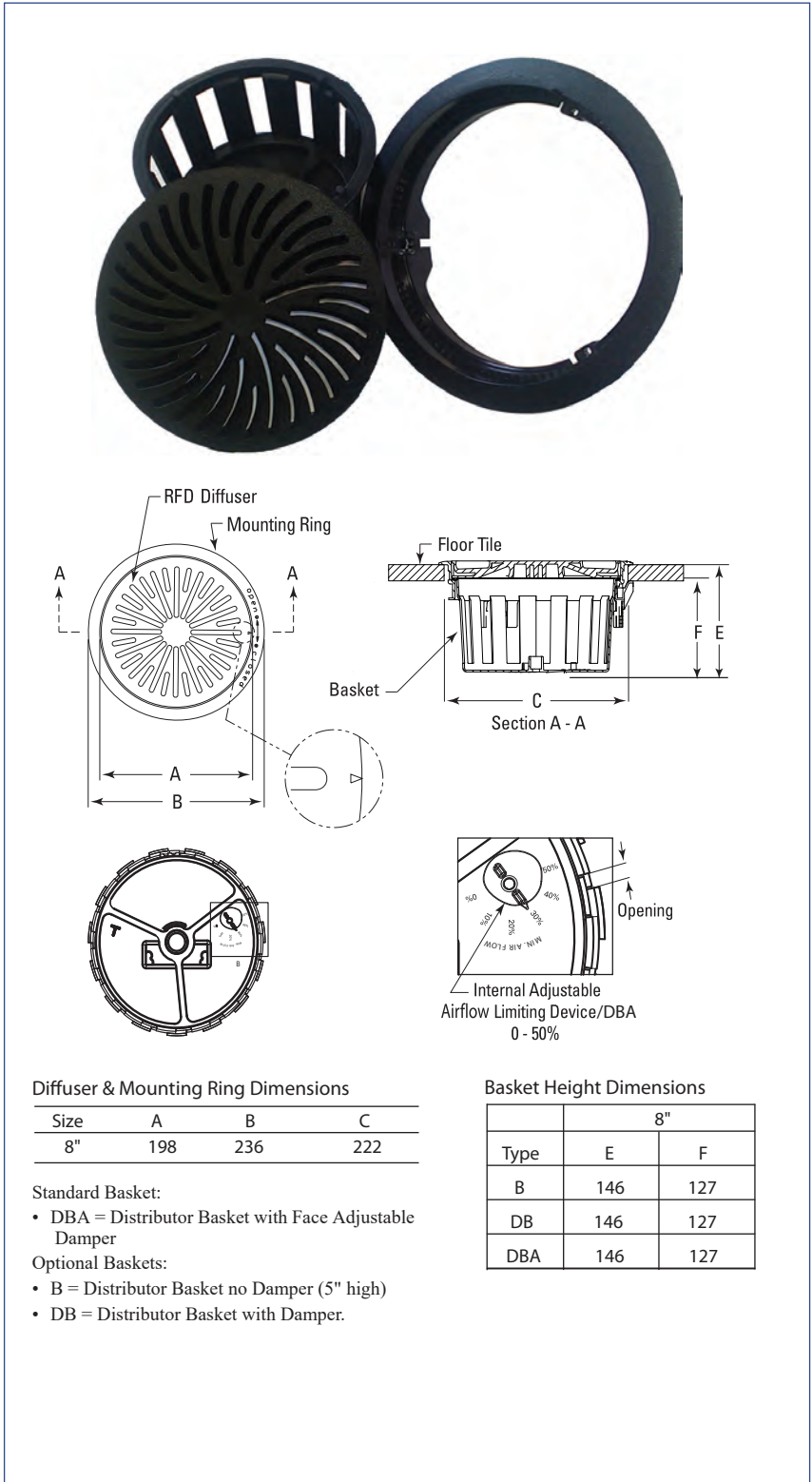
## ROUND FLOOR DIFFUSER

### Product Information:

The KBE RFD floor diffuser, creates a twisting air pattern for rapid mixing using radial slots. This generates a vertical supply with very high induction due to the turbulent flow. The high induction entrains air from the floor level and quickly equalizes the supply and room air temperatures. The discharge mixes within a turbulent cone in the occupied zone. The RFD diffuser can be placed within 24" of an occupant while maintaining a draft of less than 15 PPD (Percent People Dissatisfied) according to ASHRAE 55-2004

### Features

- Fire Rated engineered polymer (RFD) meets NFPA90A requirements.
- One-piece cores with narrow jet slot openings for safety and attractive appearance.
- Optional Variable Air Volume Basket (DBV) for non ducted VAV applications.
- Optional Diffuser Plenums (RFB) for ducted and VAV applications.
- Core is ready for installation in stepped bore in floor tile.
- Complete range of accessory Baskets, Dampers, fasteners, etc.
- Locking tabs to eliminate unauthorized removal of diffuser.
- Discharge air volume is adjustable at the diffuser face without removing diffuser from floor. Minimum airflow is adjustable from 0% to 50% of maximum airflow (with DBA Basket).
- Diffuser face has positive interlock, reducing potential for accidental adjustment of diffusers.
- Standard Finish:  
Dusty Gray or Black
- Standard Sizes 8"



**Diffuser & Mounting Ring Dimensions**

Size	A	B	C
8"	198	236	222

**Basket Height Dimensions**

Type	8"	
	E	F
B	146	127
DB	146	127
DBA	146	127

**Standard Basket:**

- DBA = Distributor Basket with Face Adjustable Damper

**Optional Baskets:**

- B = Distributor Basket no Damper (5" high)
- DB = Distributor Basket with Damper.

# MODEL RFD

## ROUND FLOOR DIFFUSER

### PERFORMANCE

Size	Airflow, cfm	40	50	60	70	80	90	100	110	120
8" AK=0.104	Total 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

#### 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:

1. Projection and Spread data were determined in a room with a 10' ceiling height and 10°F ΔT, between supply air and averaged occupied room temperature.
2. Vertical projection (throw) is the maximum height above the floor where terminal velocities of 150, 100 & 50 fpm were observed.
3. Horizontal Spread is the total width of the isovel where terminal velocities of 150, 100 and 50 fpm were observed.
4. Noise Criteria (values) based on 10 dB room absorption, re 10<sup>-12</sup> watts.
5. Pressure is in inches w.g.
5. Tests conducted with Damper fully open.
6. Test conducted according to ASHREA 70 Std

## INSTALLATION

