RVDC

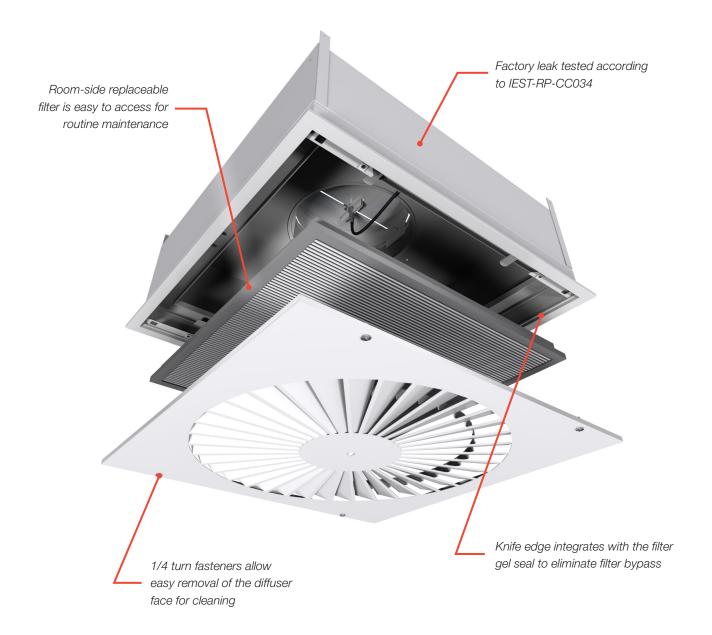
RADIAL VANE DIFFUSER WITH HEPA FILTER





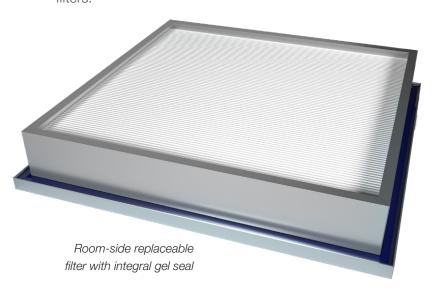
Radial Vane Diffuser with HEPA Filter

The Radial Vane Diffuser with HEPA Filter (RVDC) features radial slots that provide a high induction votex airflow that projects horizontally from the face of the diffuser. The resulting airflow provides rapid mixing of supply air with the room air and short throws, allowing large quantities of air to be introduced while maintaining thermal comfort. The rapid mixing of filtered supply air with the room air reduces particle contamination and is ideal for cleanrooms.



ROOM-SIDE REPLACEABLE FILTER

- + Convenient access from the room-side for periodic filter replacement.
- + Gel seal filter frame and diffuser "knife edge" flange form a reliable seal to prevent filter bypass.
- + Compatible with factory supplied HEPA and ULPA rated filters.



TYPICAL APPLICATIONS

The air pattern produced by the RVDC promotes a high rate of induction and rapid mixing of clean supply air with the room air, thereby reducing particle contamination and making this product ideal for cleanrooms.

CONSTRUCTION

- Options
 - Cable operated damper (VCR8EC)
 - External insulation

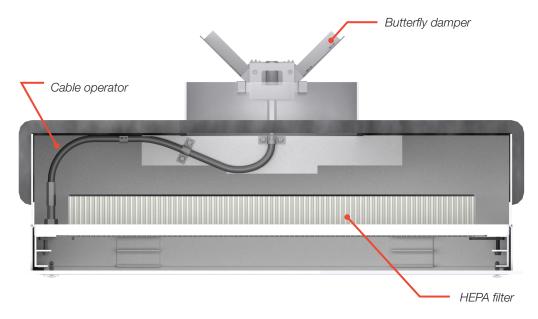
CLEANING AND MAINTENANCE

- + RVDC units satisfy all ASHRAE 170 requirements for diffuser cleaning and maintenance.
- + Powder coat paint finish is formulated for routine exposure to hospital grade cleaning solutions and disinfectants.
- + Stainless steel 1/4 turn fasteners and retainer cables provide straightforward and convenient access to the filter and knife-edge frame.



ROOM-SIDE ADJUSTABLE DAMPER

- An optional remote cable operated damper allows adjustment of the damper with the filter in place using a standard screwdriver.
- Locating the damper operator outside of the filter maximizes filter area, leading to a larger airflow capacity and less pressure drop.



Room-side adjustable damper side view

AEROSOL SAMPLE AND STATIC PRESSURE PORT

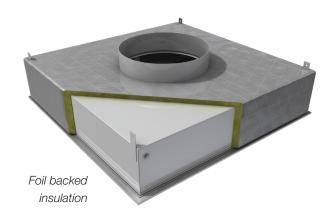
Used for room-side field measurement of static pressure and challenge aerosol concentrations upstream of the filter during the commissioning process.

FACTORY LEAK TESTING AND CERTIFICATION

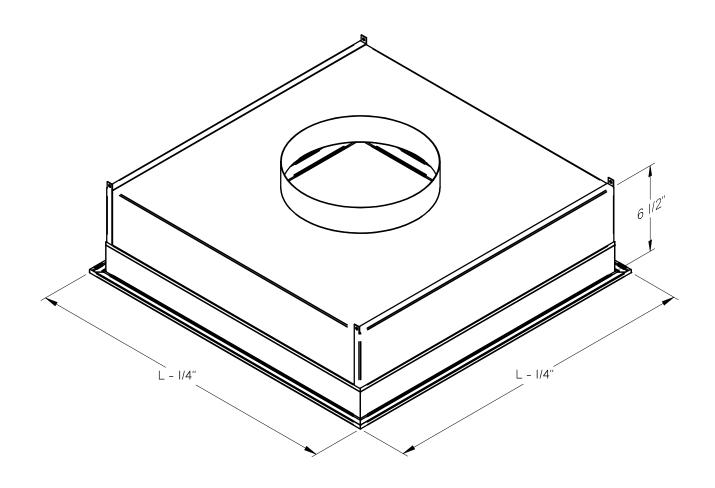
Every RVDC is factory tested and certified leak-free in accordance with IEST-RP-CC034.

XTERNAL INSULATION

- Ensures quality application and minimize field labor with factory installed insulation.
- Eliminates condensation risk associated with unconditioned plenum air exposure to cold diffuser surfaces.
- Reduces thermal gain for improved energy savings.
- Insulation meets ASTM E84 and UL723 requirements.



DIMENSIONAL DATA



Nominal Sizes			
WxL	Inlet Size		
24 in. x 24 in.	10 in.		



Radial Vane Diffuser with HEPA Filter

PERFORMANCE DATA

Unit Size (in.)	Air Flow (cfm)	Filter	Static Pressure (in. w.g.)	Sound (NC)	Horizontal Throw (ft.) 100-75-50 fpm
24 x 24	150	HE 95% .3 μm	0.14	-	1-2-4
	200		0.21	-	2-3-6
	250		0.28	-	2-4-7
	150	НЕРА 99.99% .3 µm	0.36	-	1-2-4
	200		0.50	-	2-3-6
	250		0.62	-	2-4-7
	150	ULPA 99.9995% .12 μm	0.50	-	1-2-4
	200		0.70	-	2-3-6
	250		0.88	-	2-4-7

Performance Notes:

- 1. sp = Static Pressure, in. w.g., required at inlet for the listed cfm.
- $2. \quad cfm = Air \ flow \ in \ cubic \ feet \ per \ minute \ [cfm].$
- 3. NC = Noise Criteria. $NC values are based on room absorption of 10dB, re <math>10^{-12}$ watts.
- 4. Blanks "-" indicate an NC level below 15.
- 5. Throw are given in feet to terminal velocities of 150 fpm (minimum), 100 fpm (middle) and 50 fpm (maximum).
- 6. Throw values are based on isothermal conditions.
- 7. sp and NC at full open damper position.
- Tested in accordance with ASHRAE Standard 70-2006
 "Method of Testing for Rating the Performance of Air
 Outlots and lates"



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