

# ARC

## RADIAL FLOW DIFFUSER WITH HEPA FILTER

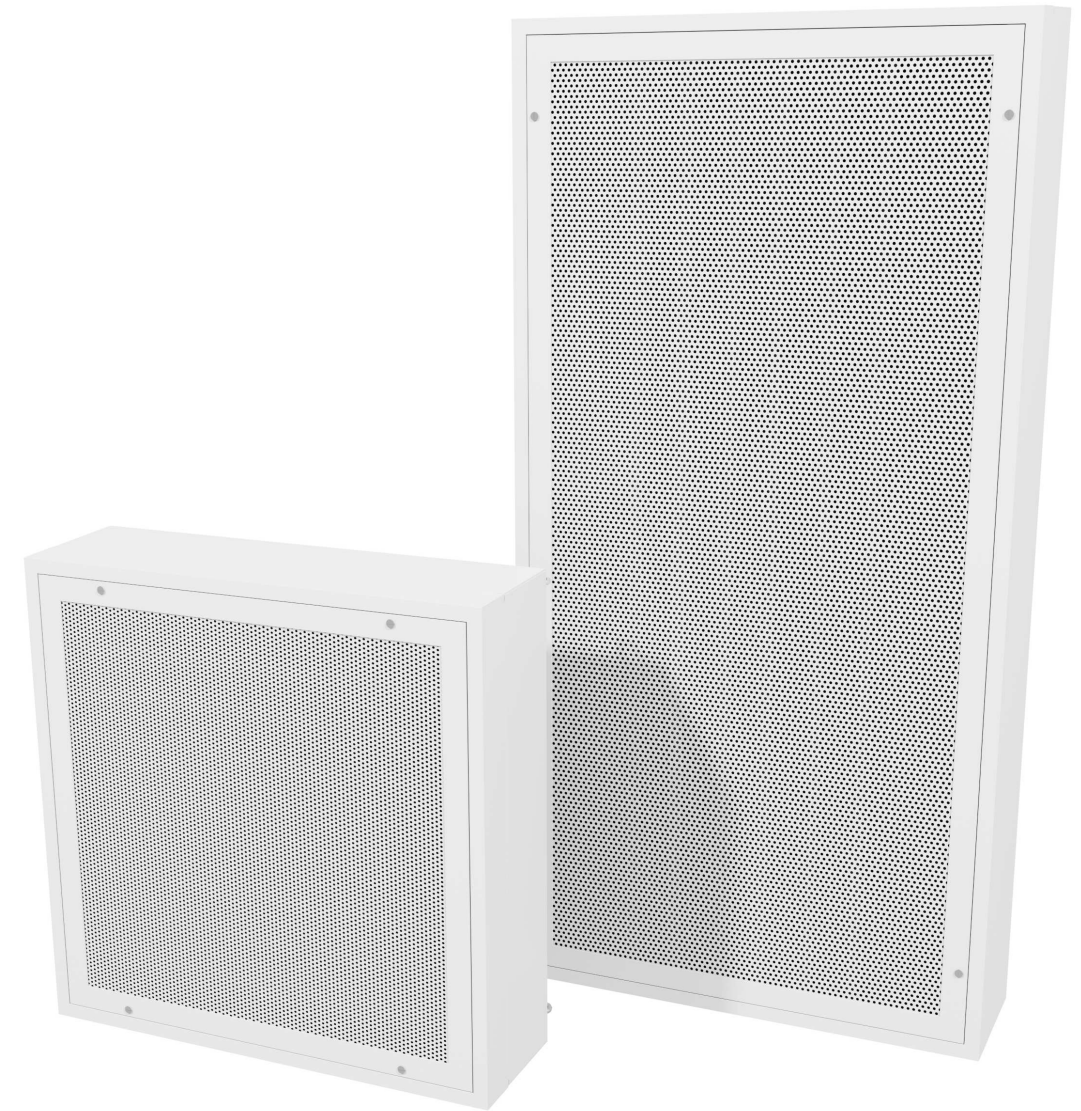
### FEATURES:

- THE ARC RADIAL FLOW DIFFUSER WITH HEPA FILTER IS DESIGNED TO DELIVER LARGE VOLUMES OF FILTERED AIR WITH EXTREMELY SHORT THROWS AND LOW VELOCITIES
- IDEAL FOR USE IN LABORATORIES, THE ARC IS ABLE TO PROVIDE LARGE VOLUMES OF MAKE-UP AIR WITHOUT ADVERSELY IMPACTING CONTAINMENT AT FUME HOODS
- ROOM-SIDE REPLACEABLE HEPA FILTER REMOVES 99.99% OF AIRBORNE CONTAMINANTS
- AEROSOL SAMPLE AND STATIC PRESSURE PORT AND OPTIONAL AEROSOL INJECTION PORT FACILITATE ROOM-SIDE AEROSOL CHALLENGE OF THE DIFFUSER



### ARC-D

DROP FACE RADIAL FLOW DIFFUSER WITH HEPA FILTER



### ARC-F

FLUSH PERFORATED FACE RADIAL FLOW DIFFUSER WITH HEPA FILTER



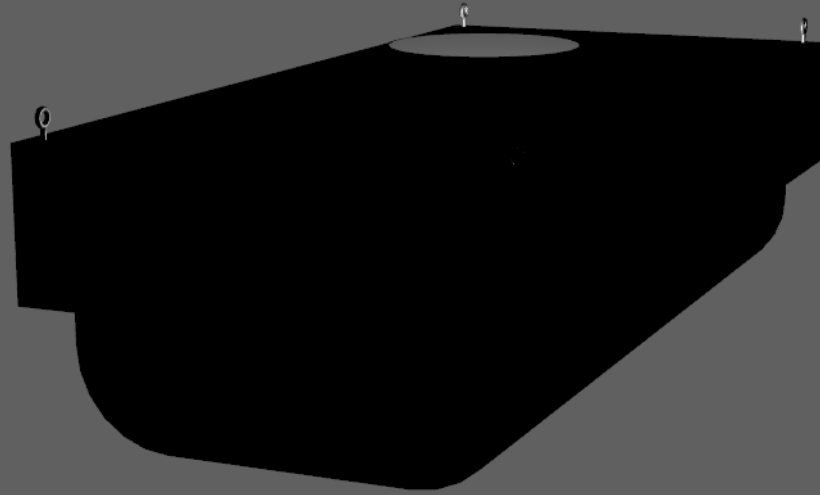
PROJECT:

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RADIAL FLOW DIFFUSER WITH HEPA FILTER  
3D INTERACTIVE MODELS



**PRODUCT CONFIGURATIONS**  
(CLICK BUTTONS TO TOGGLE VIEWS)

- USE THE SCROLL WHEEL TO ZOOM
- HOLD DOWN THE LEFT MOUSE BUTTON TO ROTATE
- HOLD DOWN CTRL AND LEFT MOUSE BUTTON TO MOVE



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# ARC-F

## RADIAL FLOW DIFFUSER WITH HEPA FILTER CONSTRUCTION DETAILS AND OPTIONS - FLUSH FACE OPTION

### STANDARD CONSTRUCTION

- PLENUM SEALED WITH ADHESIVE SEALANT
- SPOT WELDED PLENUM SEAMS
- CONTINUOUSLY WELDED VERTICAL AND HORIZONTAL KNIFE EDGE SEAMS
- EXTRUDED ALUMINUM FILTER FRAME WITH URETHANE GEL
- STATIC PRESSURE AND AEROSOL SAMPLE PORT
- TWO STAINLESS STEEL RETAINER CABLES PER UNIT
- FACTORY TOLERANCE +/-  $\frac{1}{32}$ "

### PLENUM CONSTRUCTION

- ALUMINUM PLENUM, EXTRUDED ALUMINUM KNIFE EDGE FRAME
- STAINLESS STEEL - 304 STAINLESS STEEL PLENUM & KNIFE EDGE FRAME

### FACE CONSTRUCTION

- ALUMINUM - PERFORATED PANEL AND EXTRUDED INNER FRAME
- STAINLESS STEEL - 304 STAINLESS STEEL PERFORATED PANEL AND INNER FRAME

### PLENUM FINISH

- B12 STANDARD WHITE
- STAINLESS STEEL - 2B PLENUM & STAINLESS STEEL #4 KNIFE EDGE (OPTIONAL FINISH AVAILABLE)

### FACE AND FRAME FINISH

- B12 STANDARD WHITE
- #4 STAINLESS STEEL (OPTIONAL FINISH AVAILABLE)

### INLET SIZES

- 10" (254 mm) ROUND
- 12" (305 mm) ROUND

### FILTER

- NO-FTR - NO FILTER
- HEPA - 99.99% (0.3 MICRON)
- ULPA - 99.9995% (0.12 MICRON)
- FRB - FILTER REPLACEMENT BAFFLE

### DAMPER (OPTIONAL)

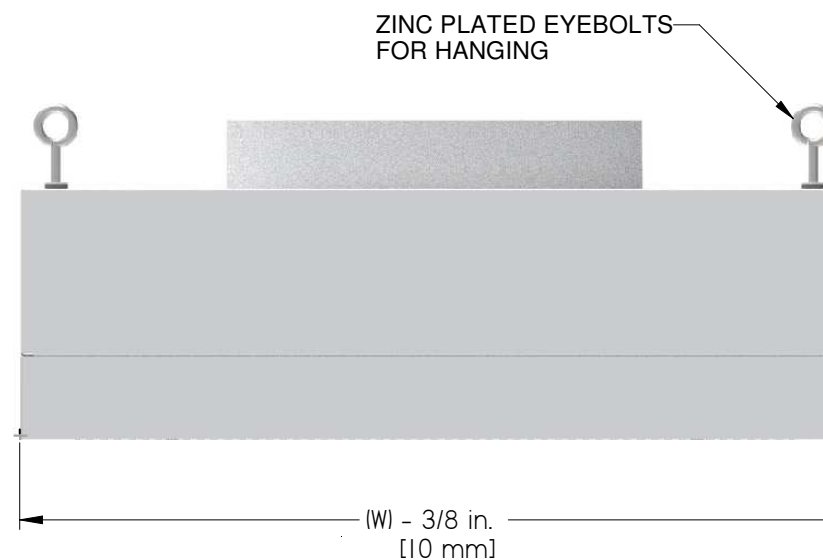
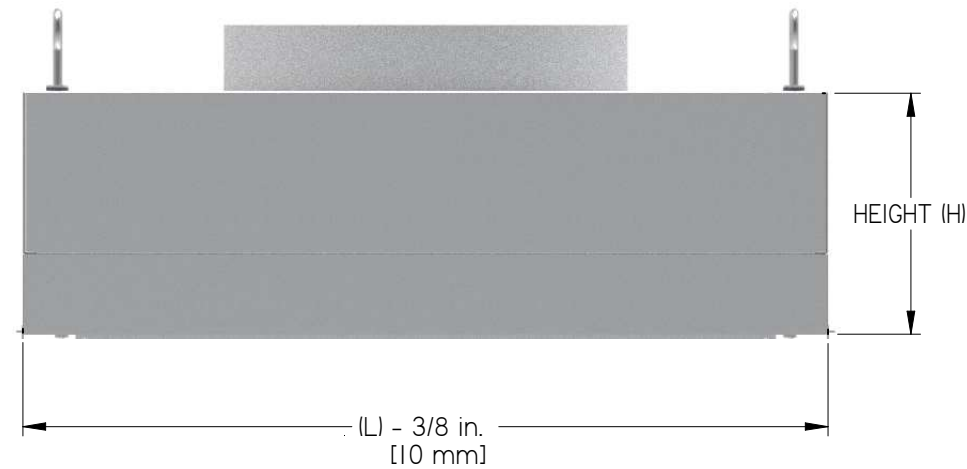
- VRC8EC - BUTTERFLY DAMPER, WHITE POWDER COATED STEEL BLADES
- VRC8ECSS - BUTTERFLY DAMPER, STAINLESS STEEL BLADES

### OPTIONS

- FL - FILTER INDICATOR LIGHT ON FACE
- FL+FBAS - FILTER INDICATOR LIGHT ON FACE AND FILTER BAS SIGNAL
- EQ - EQUALIZATION BAFFLE
- INJ - AEROSOL INJECTION SYSTEM WITH INLET EQUALIZATION BAFFLE
- CW - CONTINUOUSLY WELDED VERTICAL PLENUM SEAMS, SPOT WELDED INLET
- AFI-0.5: 0.5" THICK ALUMINUM FOIL-BACKED FIBERGLASS EXTERNAL INSULATION
- AFI-1.5: 1.5" THICK ALUMINUM FOIL BACKED FIBERGLASS EXTERNAL INSULATION

### NOTES:

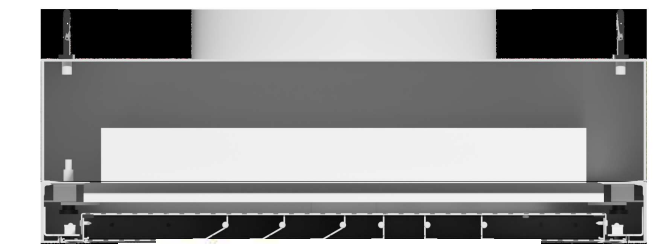
- FILTER PACKAGED SEPERATELY FROM DIFFUSER HOUSING FOR JOB SITE INSTALLATION BY OTHERS
- PLENUM FACTORY SCANNED FOR LEAKS IN ACCORDANCE WITH IEST-RP-CC034
- LAY IN CEILING INSTALLATION ONLY. UNIT SIZE DESIGNED FOR 1" WIDE T-BAR OR 1.5" WIDE T-BAR WITH 1/8" NOMINAL SIZE INCREASE PER FOOT
- FOR SURFACE MOUNT INSTALLATION, ORDER SEPERATE APEX MOUNTING FRAME.



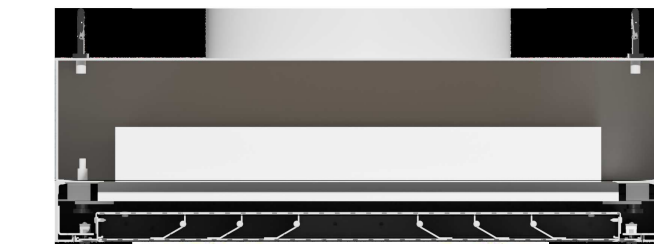
1-WAY HALF RADIAL AIRFLOW PATTERN



2-WAY FULL RADIAL AIRFLOW PATTERN



PERFORATED FACE WITH 1-WAY HALF RADIAL AIRFLOW PATTERN



PERFORATED FACE WITH 2-WAY FULL RADIAL AIRFLOW PATTERN

### IMPERIAL UNITS (INCHES)

NOMINAL UNIT SIZE (W x L)	ACTUAL WIDTH	ACTUAL LENGTH	HEIGHT (H)	FILTER AREA (sq.ft.)
24 X 24	23.625	23.625	7.125	2.3
24 X 48	23.625	47.625	7.125	5.3

### SI UNITS (MM)

NOMINAL UNIT SIZE (W x L)	ACTUAL WIDTH	ACTUAL LENGTH	HEIGHT (H)	FILTER AREA (m <sup>2</sup> )
610 X 610	600	600	181	0.21
610 X 1220	600	1210	181	0.49



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# ARC-D

## RADIAL FLOW DIFFUSER WITH HEPA FILTER CONSTRUCTION DETAILS AND OPTIONS - DROP FACE OPTION

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### PLENUM CONSTRUCTION

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### PLENUM FINISH

- B12 STANDARD WHITE
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### FACE AND FRAME FINISH

- B12 STANDARD WHITE
- #4 STAINLESS STEEL (OPTIONAL FINISH AVAILABLE)

### INLET SIZES

- 6" (152 mm) ROUND
- 8" (203 mm) ROUND
- 10" (254 mm) ROUND
- 12" (305 mm) ROUND

### FILTER

- NO-FTR - NO FILTER
- HEPA - 99.99% (0.3 MICRON)
- ULPA - 99.9995% (0.12 MICRON)
- FRB - FILTER REPLACEMENT BAFFLE

### DAMPER (OPTIONAL)

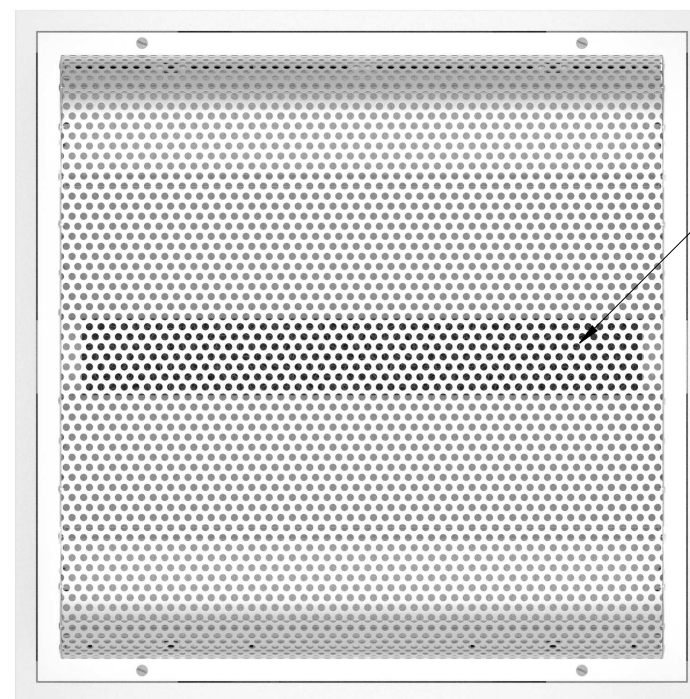
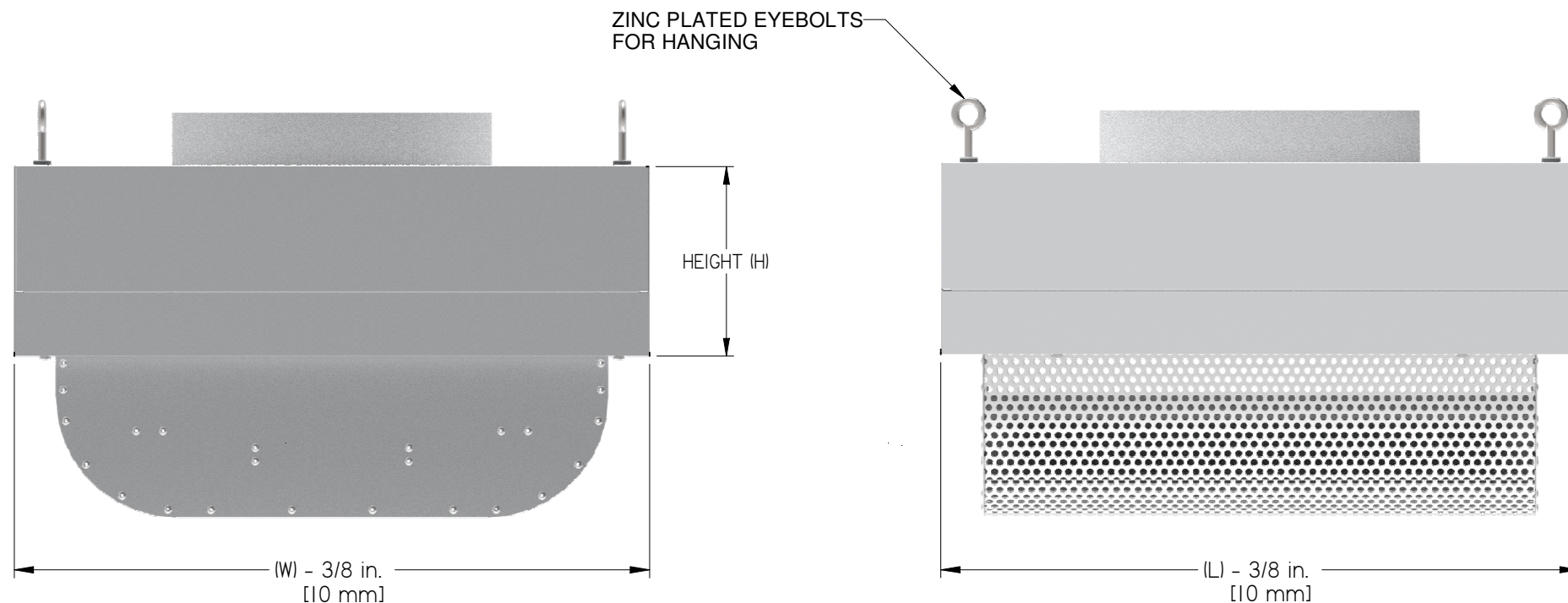
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- AFI-1.5: 1.5" THICK ALUMINUM FOIL BACKED FIBERGLASS EXTERNAL INSULATION

### NOTES:

- FILTER PACKAGED SEPERATELY FROM DIFFUSER HOUSING FOR JOB SITE INSTALLATION BY OTHERS
- PLENUM FACTORY SCANNED FOR LEAKS IN ACCORDANCE WITH IEST-RP-CC034
- LAY IN CEILING INSTALLATION ONLY. UNIT SIZE DESIGNED FOR 1" WIDE T-BAR OR 1.5" WIDE T-BAR WITH 1/8" NOMINAL SIZE INCREASE PER FOOT
- FOR SURFACE MOUNT INSTALLATION, ORDER SEPERATE APEX MOUNTING FRAME.



HIGH SURFACE AREA  
DROP FACE

### IMPERIAL UNITS (INCHES)

NOMINAL UNIT SIZE (W x L)	ACTUAL WIDTH	ACTUAL LENGTH	HEIGHT (H)	FILTER AREA (sq.ft.)
24 X 48	23.625	47.625	7.125	5.3
24 X 24	23.625	23.625	7.125	2.3
12 X 48	11.625	47.625	7.125	1.8

### SI UNITS (MM)

NOMINAL UNIT SIZE (W x L)	ACTUAL WIDTH	ACTUAL LENGTH	HEIGHT (H)	FILTER AREA (m <sup>2</sup> )
610 X 1220	600	1210	181	0.49
610 X 610	600	600	181	0.21
305 X 1220	295	1210	181	0.17



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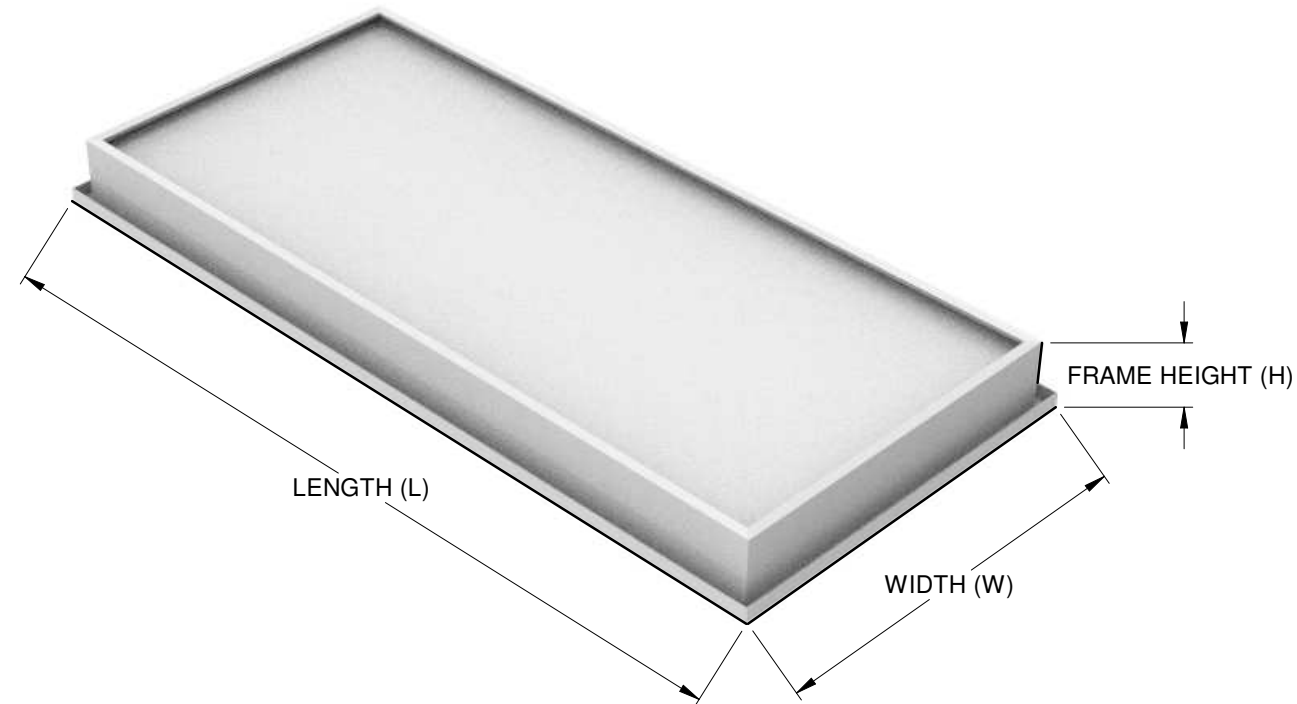
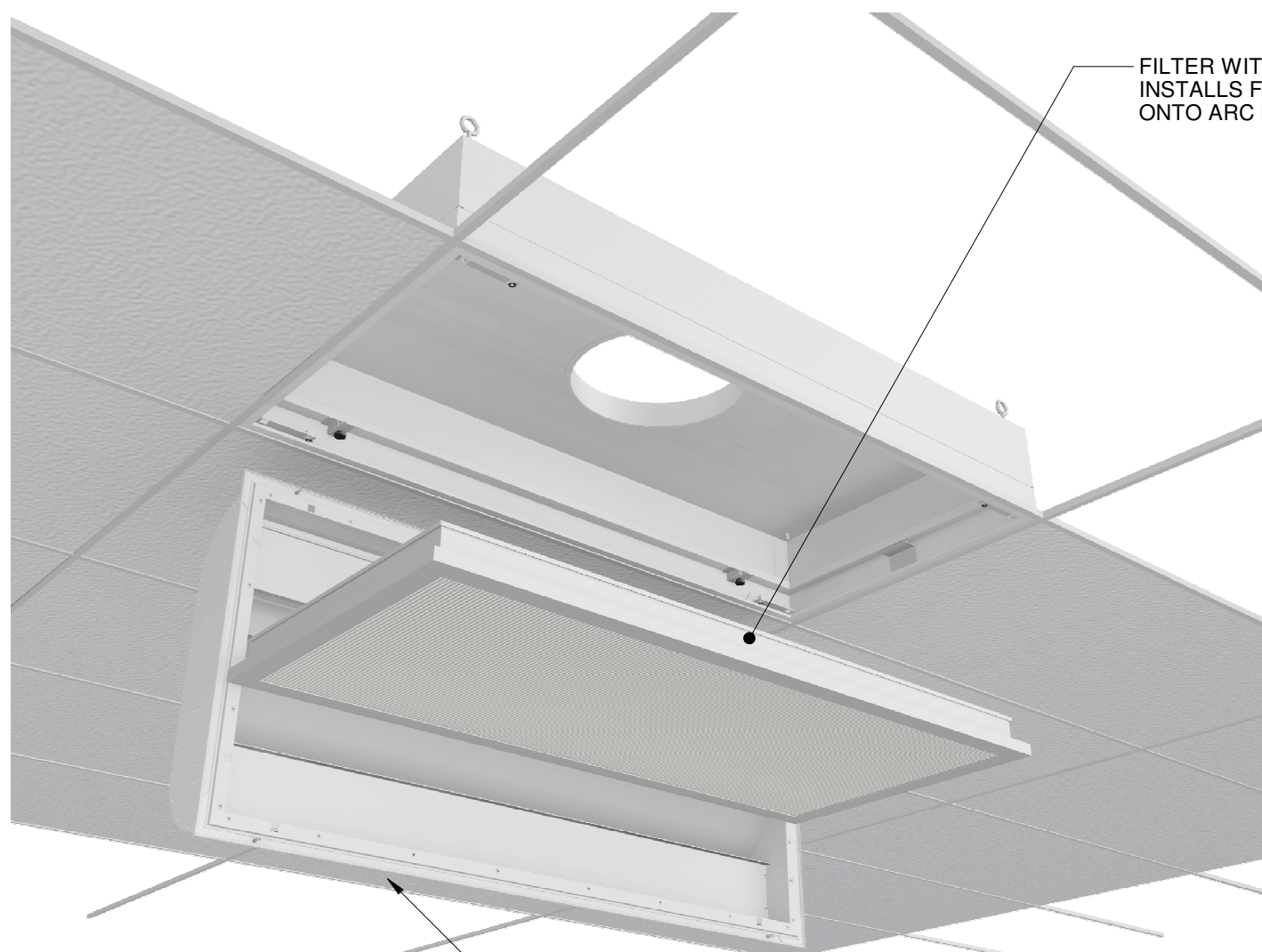
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## RADIAL FLOW DIFFUSER WITH HEPA FILTER FILTER DETAILS



### NOTES

- FILTER PLEATS RUN PARALLEL TO THE WIDTH (W) DIMENSION
- DIMENSIONS L & W TOLERANCES  $\pm \frac{1}{16}$ "
- FILTERS COME WITH GEL SEAL FILLED CHANNEL
- EXPANDED PAINTED WHITE SCREEN ON THE DOWNSTREAM SIDE
- FRAME DETAILS:
  - MATERIAL: ANODIZED EXTRUDED ALUMINUM
  - THICKNESS:  $\frac{1}{16}$ " (MINIMUM)
- HEPA FILTERS EFFICIENCY AND LEAK SCAN TESTED TO IEST RP CC001 TYPE J
- ULPA FILTERS EFFICIENCY AND LEAK SCAN TESTED TO IEST RP CC001 TYPE F
- FILTER PACKAGED SEPERATELY FROM DIFFUSER FOR JOB SITE INSTALLATION BY OTHERS

### SI UNITS (MM)

ACTUAL FILTER SIZE		
WIDTH (W)	LENGTH (L)	HEIGHT (H)
221	1135	73
526	526	73
526	1135	73

### IMPERIAL UNITS (INCHES)

ACTUAL FILTER SIZE		
WIDTH (W)	LENGTH (L)	HEIGHT (H)
11.63	47.63	2.88
20.69	20.69	2.88
20.69	44.69	2.88



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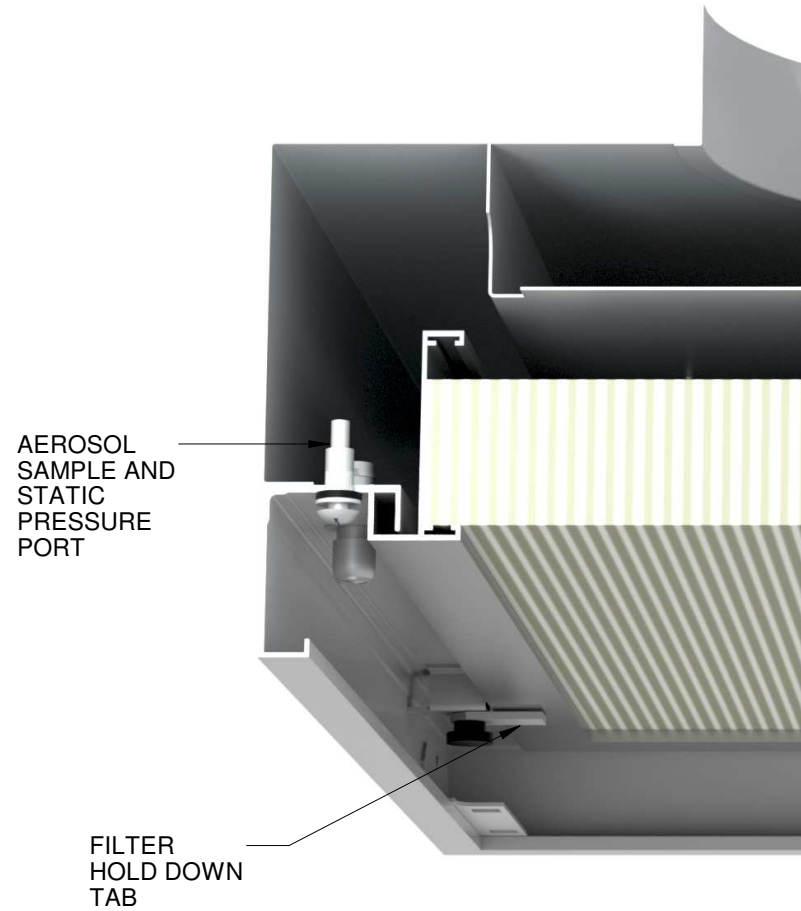
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VISIT KEYSTONE CLEAN AIR SOLUTIONS WEBSITE FOR FILTER INSTALLATION GUIDE

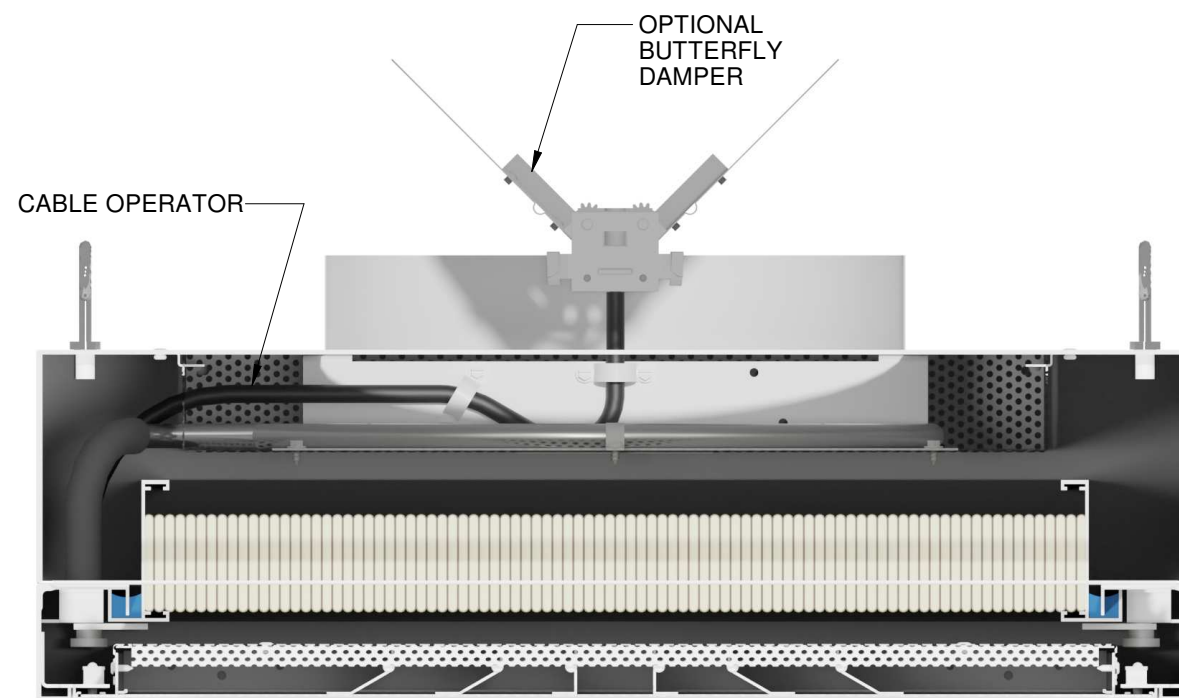
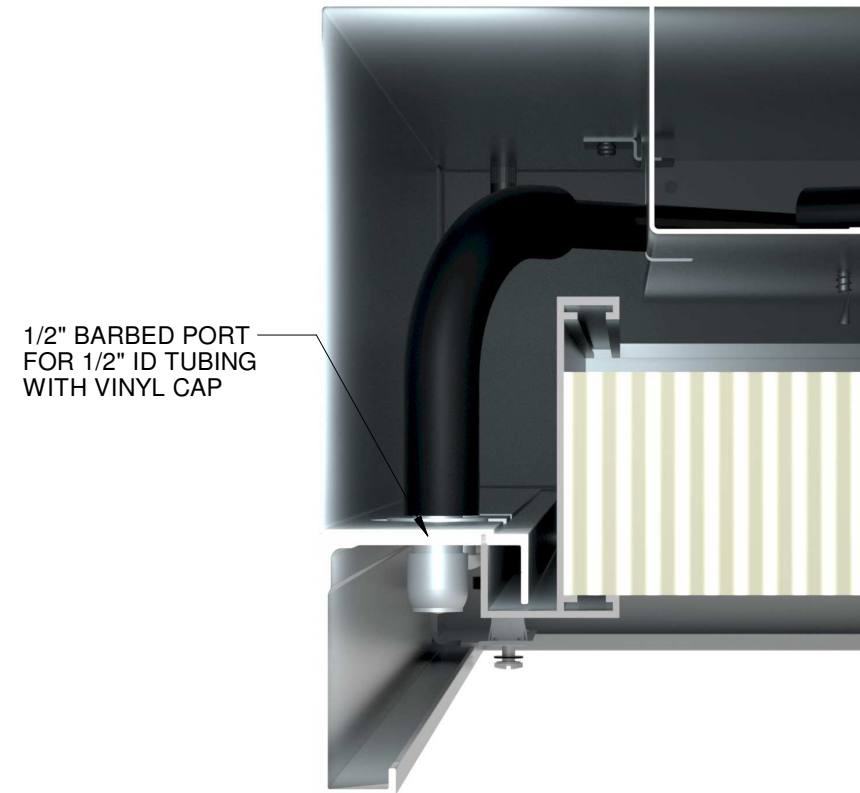
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## RADIAL FLOW DIFFUSER WITH HEPA FILTER DETAIL VIEWS

### AEROSOL/STATIC PORT DETAIL VIEW



### INJ - AEROSOL INJECTION PORT DETAIL VIEW



### DAMPER DETAIL VIEW

PERFORATED FLUSH FACE  
OPTIONS SHOWN

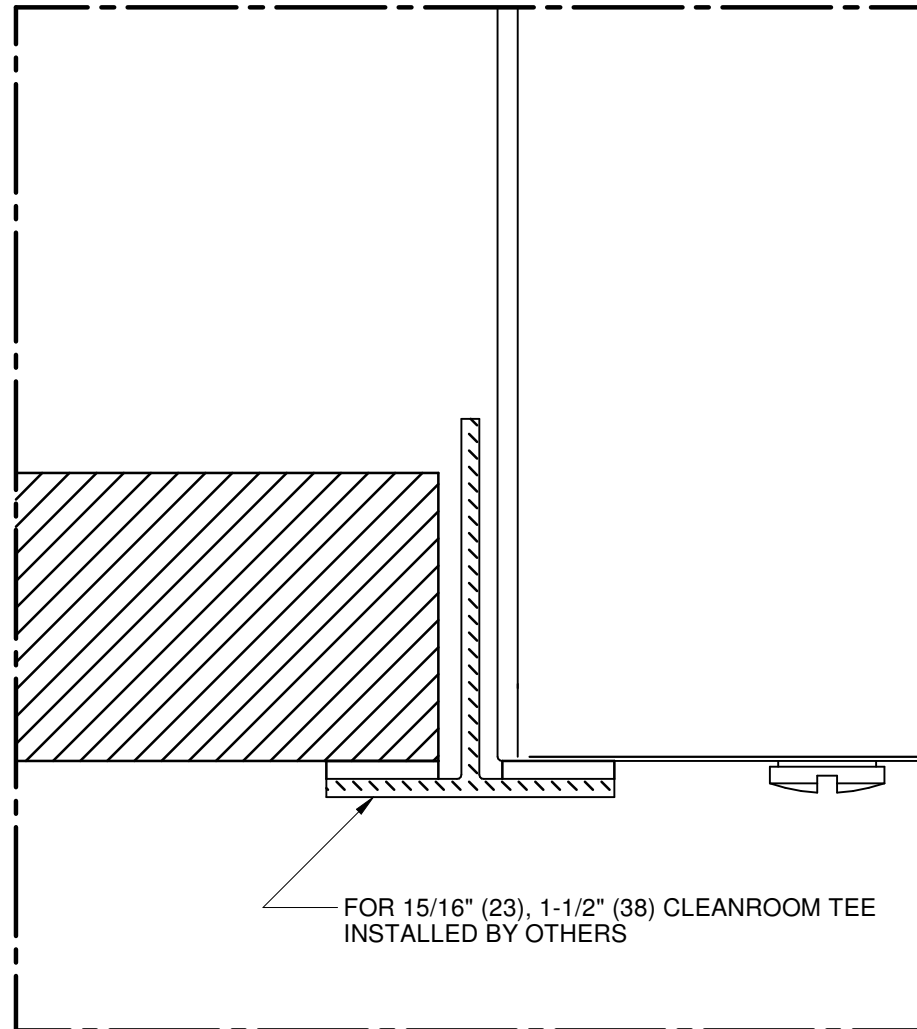


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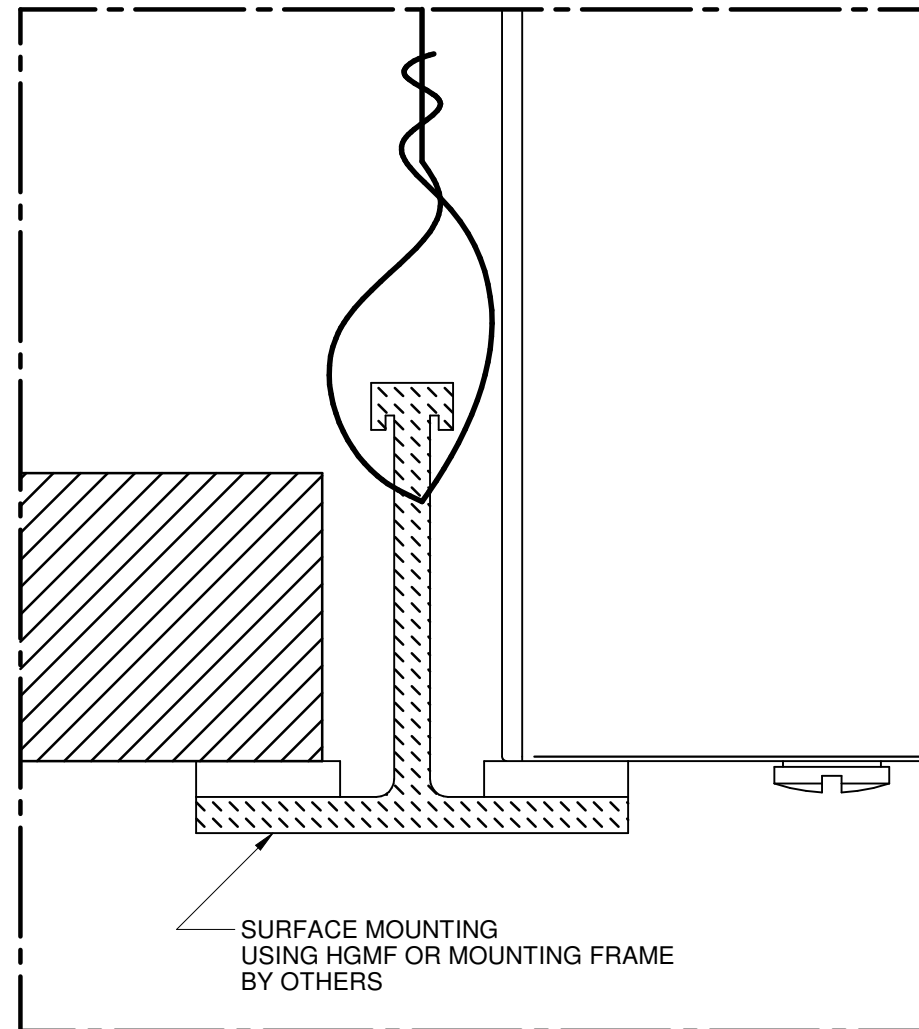
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## RADIAL FLOW DIFFUSER WITH HEPA FILTER CEILING MOUNTING DETAILS

### T-BAR MOUNTING



### SURFACE MOUNTING



#### NOTES:

- LAY IN CEILING INSTALLATION ONLY. UNIT SIZE DESIGNED FOR 1" WIDE T-BAR OR 1.5" WIDE T-BAR.
- FOR SURFACE MOUNT INSTALLATION ORDER SEPARATE APEX MOUNTING FRAME.



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