

LFDCX

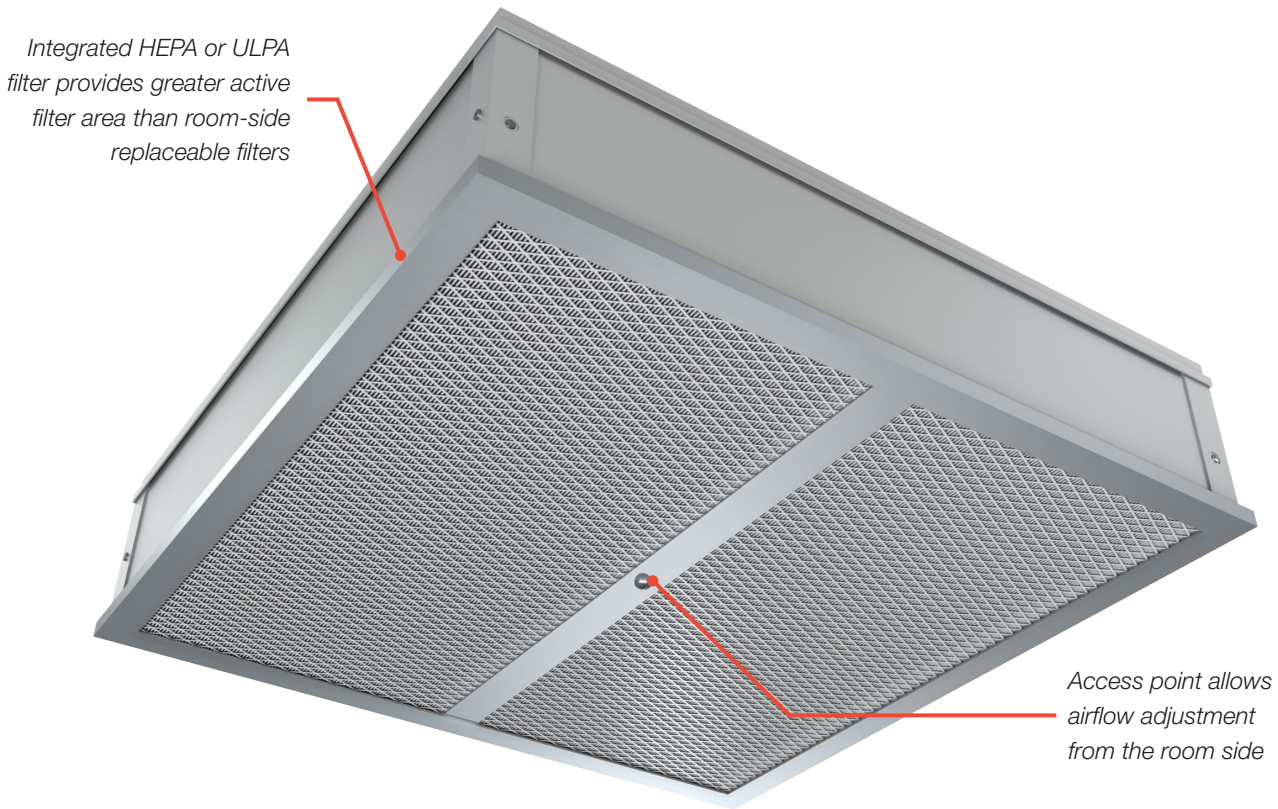
LAMINAR FLOW DIFFUSER WITH INTEGRATED HEPA FILTER



LFDCX

Laminar Flow Diffuser with Integrated HEPA Filter

The low profile Laminar Flow Diffuser with Integrated HEPA Filter (LFDCX) is designed to suit the requirements of modern cleanrooms. The LFDCX provides a means of controlling particulate within a room by providing unidirectional laminar airflow with low initial face velocity, supplying filtered air to the space without entrainment of contaminated air from the occupied space. With a larger filter area, the LFDCX can achieve higher airflow capacities than a diffuser with a room-side replaceable filter.



LFDCX

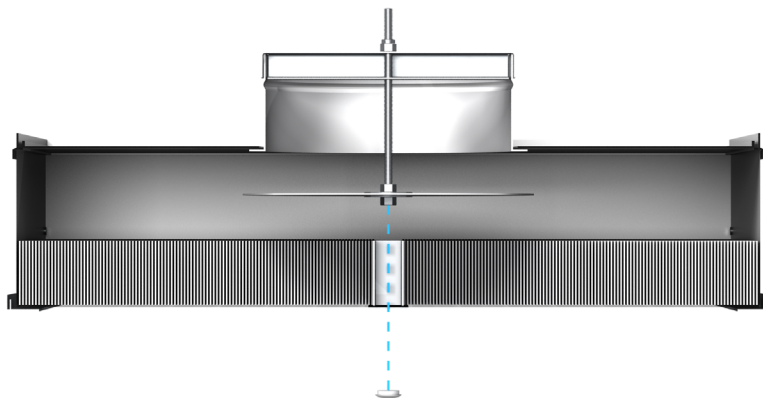
Laminar Flow Diffuser with Integrated HEPA Filter

INTEGRATED FILTER

- + The permanent integrated full-size HEPA or ULPA filter provides greater active filter area and airflow capacity than laminar flow diffusers with room-side removable filters.
- + Due to the permanent nature of the integrated filter the full diffuser-filter assembly must be replaced when the filter is fully loaded.
- + The protective screen prevents damage to the filter media during installation and operation.

CENTER ACCESS CHANNEL

- + The anodized extruded aluminum center divider provides access to the distribution plate and damper for room-side airflow adjustment and also allows for static pressure measurement and upstream aerosol challenge verification.



FACTORY LEAK TESTING AND CERTIFICATION

- + Every LFDCX is factory tested to ensure leak-free construction.

TYPICAL APPLICATIONS

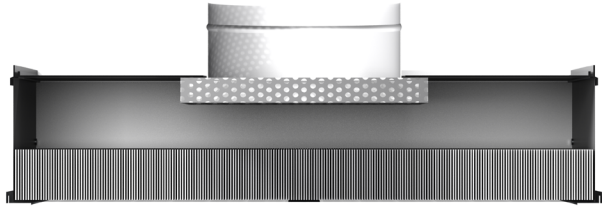
The LFDCX is typically used in applications that require filtered, low velocity supply air for critical processes requiring minimal turbulence or induction of room air. These applications include cleanrooms for aerospace and semiconductor manufacturing.

CONSTRUCTION

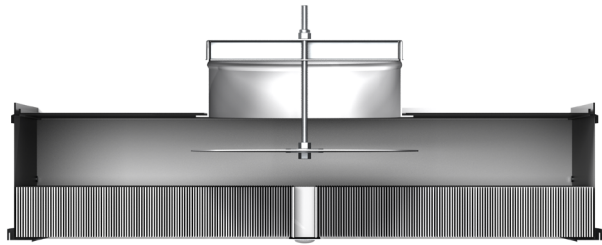
- + Damper
 - Fixed distribution plate
 - Adjustable distribution plate
 - Butterfly damper
- + Filter Media
 - HEPA
 - ULPA
- + Filter depth
 - 2 in.
 - 4 in.
- + Options
 - Exterior insulation

ROOM-SIDE ADJUSTABLE AIRFLOW

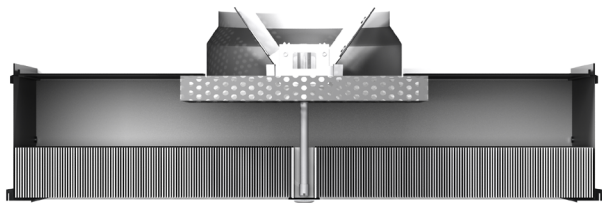
- + Three airflow control options:
 - **Fixed distribution plate** - providing even dispersion of supply airflow across the filter.
 - **Adjustable distribution plate** - providing even dispersion of supply airflow across the filter with limited room-side adjustment of airflow.
 - **Butterfly damper with fixed distribution plate** - providing even dispersion of supply airflow across the filter with full room-side adjustment of airflow.



Fixed distribution plate



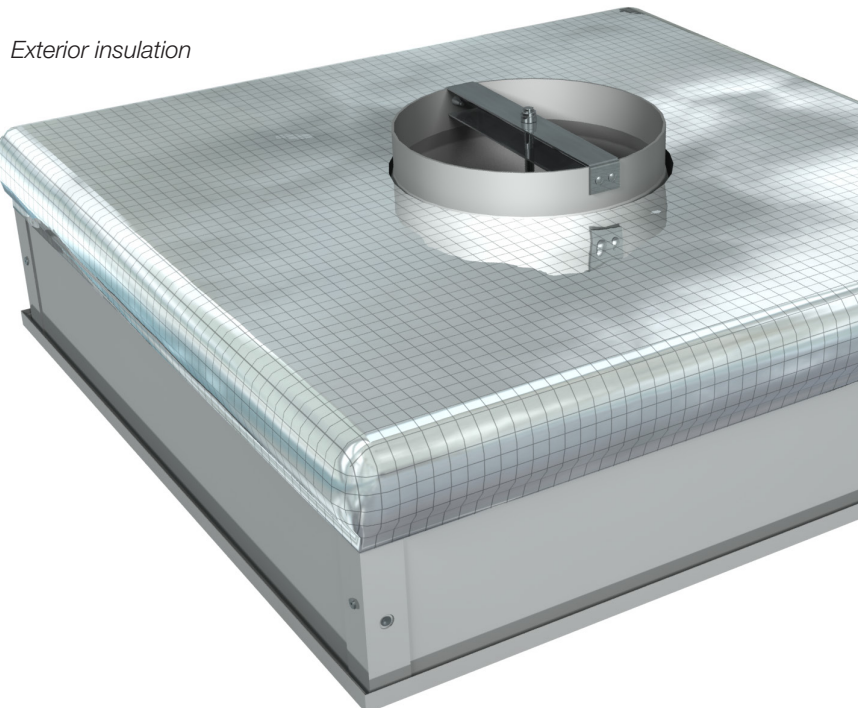
Adjustable distribution plate



Butterfly damper

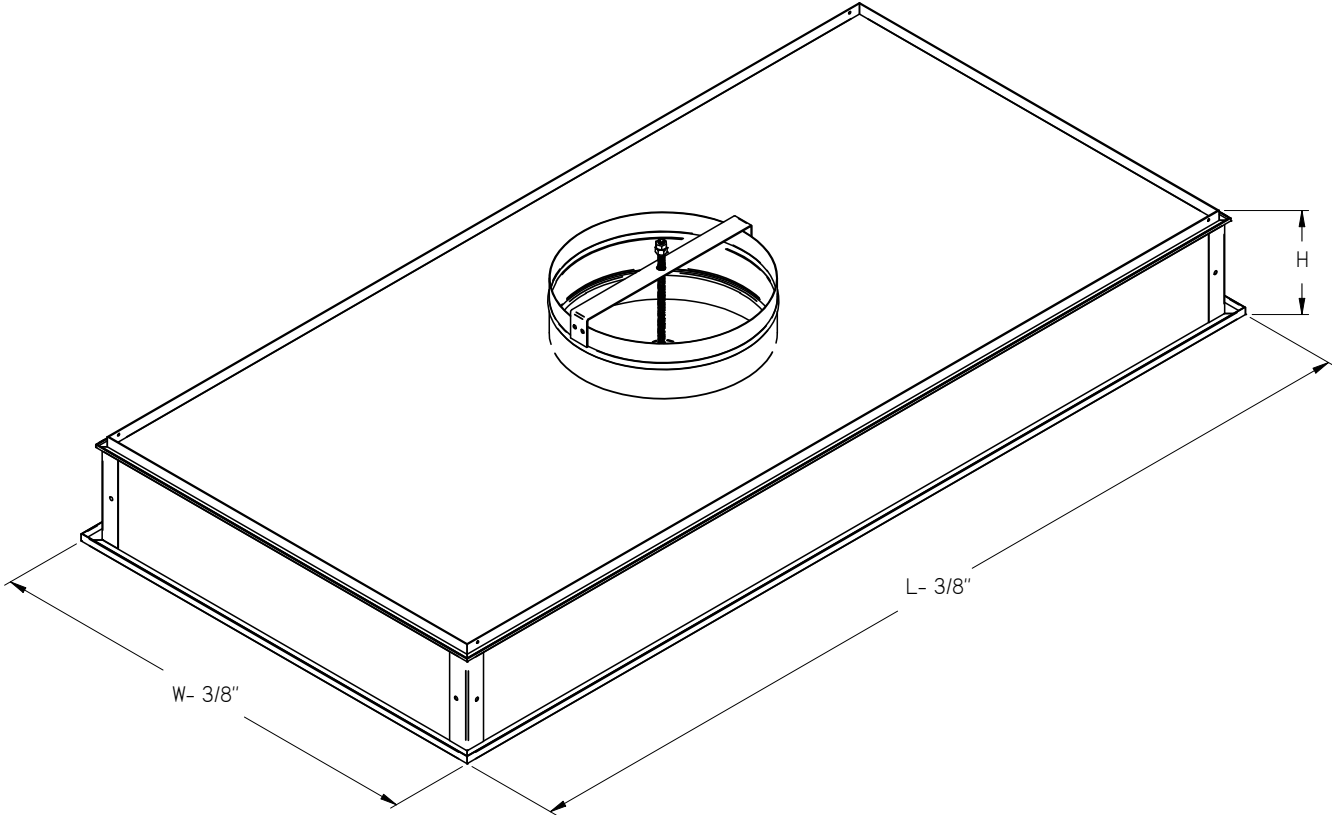
FACTORY INSTALLED INSULATION

- + Ensures quality application and minimizes field labor
- + Eliminates condensation risk associated with unconditioned plenum air exposure to cold diffuser surfaces
- + Reduced thermal gain for improved energy savings
- + Meets ASTM E84 and UL723 requirements



Exterior insulation

DIMENSIONAL DATA



Nominal Size	
W x L	Inlet Sizes
24 in. x 24 in.	8,10,12,14
24 in. x 36 in.	
24 in. x 42 in.	
24 in. x 48 in.	

Nominal Filter Depth	Unit Height (H)
2 in. Dimple Pleat	5.531 in.
4 in. Dimple Pleat	7.188 in.

PERFORMANCE DATA

Unit Size (in.)	Airflow (cfm)	Filter	Static Pressure (in. w.g.)	
24 x 24	220	HEPA 2" Pack Depth	0.42	
	285		0.52	
	315		0.57	
	24 x 24	220	HEPA 4" Pack Depth	0.28
		285		0.37
		315		0.4
	24 x 24	220	ULPA 2" Pack Depth	0.48
		285		0.61
		315		0.68
	24 x 24	220	ULPA 4" Pack Depth	0.32
		285		0.4
		315		0.45
24 x 36	345	HEPA 2" Pack Depth	0.42	
	445		0.52	
	495		0.57	
	24 x 36	345	HEPA 4" Pack Depth	0.28
		445		0.37
		495		0.4
	24 x 36	345	ULPA 2" Pack Depth	0.48
		445		0.61
		495		0.68
	24 x 36	345	ULPA 4" Pack Depth	0.32
		445		0.4
		495		0.45
24 x 42	410	HEPA 2" Pack Depth	0.42	
	525		0.52	
	585		0.57	
	24 x 42	410	HEPA 4" Pack Depth	0.28
		525		0.37
		585		0.4
	24 x 42	410	ULPA 2" Pack Depth	0.48
		525		0.61
		585		0.68
	24 x 42	410	ULPA 4" Pack Depth	0.32
		525		0.4
		585		0.45
24 x 48	475	HEPA 2" Pack Depth	0.42	
	610		0.52	
	680		0.57	
	24 x 48	475	HEPA 4" Pack Depth	0.28
		610		0.37
		680		0.4
	24 x 48	475	ULPA 2" Pack Depth	0.48
		610		0.61
		680		0.68
	24 x 48	475	ULPA 4" Pack Depth	0.32
		610		0.4
		680		0.45

Performance Notes:

1. Static Pressure, in. w.g., required at inlet for the listed cfm.
2. Air flow in cubic feet per minute, cfm.



Product Improvement is a continuing endeavour at Price. Therefore, specifications are subject to change without notice. Consult your Price Sales Representative for current specifications or more detailed information. Not all products may be available in all geographic areas. All goods described in this document are warranted as described in the Limited Warranty shown at priceindustries.com. The complete Price product catalog can be viewed online at priceindustries.com.