

# Northland Filter Ceiling Mount Modules

Northland Filter International HEPA/ULPA Ceiling Mount Filter Modules are lightweight low profile ducted units.

The mini-pleat filter packs are designed to provide unidirectional airflow from tee-bar ceilings.

Northland modules are available in two sizes: nominal 24" x 24" and 24" x 48" with either 10" or 12" diameter inlet collars.

They are available in particle size efficiencies: 99.97%, 99.99% on .0.30  $\mu\text{m}$  as well as 99.999% and in three filter pack depths: 53, 70 and 100 mm

## Installation and Application Considerations

Northland Filter International HEPA/ULPA Ceiling Mount Filter Modules are recommended for use in ultra clean applications.

They are ideal for fabrication of microelectronics, semiconductors, and medical devices; and in aero- space, biotech and pharmaceutical production.

Selection of the 70mm or 100mm Pack size models will help reduce operating costs because of their lower resistance and longer service life.

Clips on the module's top four corners are to be used to secure seismic restraint wires.

Foam gasket should be applied to the tee-bar surface on which the module will rest.

## Construction

The heart of the Northland Filter International HEPA/ULPA Ceiling Mount Filter Modules is a state-of-the-art minipleat filter pack sealed in an aluminum frame forming the sides of the module.

The aluminum center divider holds ports for in-room damper adjustment and measurement of the challenge aerosol.

A 20 Ga. expanded steel white powder coated face grill protects the media pack.

Each module is tested after assembly to meet or exceed IEST RP-1 requirements for a Type C or F filter.

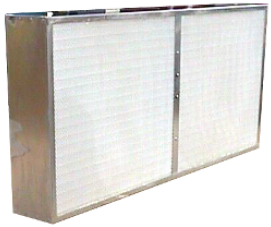


## Options

Northland Ceiling Modules are available with either nominal 10" or 12" diameter inlet collars.

One-inch thick vinyl-backed fiberglass insulation on the top and sides of the module is also available.

**All filters are unconditionally guaranteed against manufacturers' defects for 30 days from date of invoice only. Prices are subject to change without notice. All prices are FOB Oswego, NY.**



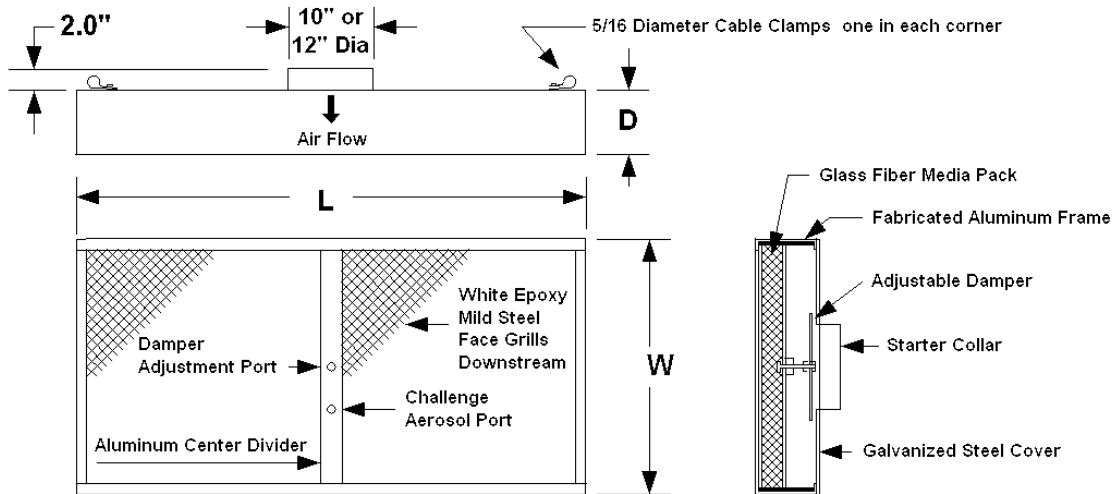
### Northland Filter International Ceiling Mount Specifications

**Application:** Ceiling Mounted Unit for Final Filtration  
**Type:** Plug and Play HEPA/ULPA Filter Diffuser  
**Frame:** Fabricated .050 Aluminum with Galvanized Steel Cover  
**Mounting System:** Drop Ceiling Tee Bar with Four Corner Cable Clamps  
**Connection:** Starter Flange with Outer Diameter of 10" or 12"  
**Media:** Glass Fiber  
**Separators:** Hot Melt Beads on 1 1/8" Centers  
**Sealant:** Fire Retardent Urethane  
**Grid:** White Epoxy Paint on Low Carbon Steel  
**Filtration Efficiency:** ≥ 99.999% @ .3 Micron  
**Tested Per:** Mil Spec 282  
**Recommended Final Pressure Drop:** 2.5 inches of Water  
**Temperature:** 200 Degrees F 100% R/H  
**Test:** 100% Individual  
**Designed to:** UL 900 Class 2  
**Maximum Flow Rate:** Nominal Flow Rate Otherwise a Reduction in Efficiency

#### Ordering Information

Example: CM2448-49370-12Y1YNN

<b>CM</b>	<b>2448</b>	<b>493</b>	<b>70</b>	<b>12</b>	<b>Y</b>	<b>1</b>	<b>Y</b>	<b>N</b>	<b>N</b>
Style: Ceiling Mount	Basic Size 2424 = 23 5/8 x 23 5/8 2448 = 23 5/8 x 47 5/8	Efficiency 493 = 99.99% @ .3um 593 = 99.999% @ .3um	Pack Depth 53 mm = 2" 70 mm = 2 3/4" 100 mm = 4"	Collar Size 10" 12"	Damper Y = Yes N = No	Number of Ports - = 0 1 = 1 2 = 2	Center Divider Y = Yes N = No	Gasket Y = Yes N = No	Insulation Y = Yes N = No



Ceiling Mount Dimensions							
Model Number	Pack Size	W	L	D	Nominal CFM @ Gross Face Velocity 100 fpm	Initial Pressure Drop (In. of Water)	Installation Weight
CM2448	53 mm (2")	23 5/8	47 5/8	4 3/4	800	<1	35 lbs
CM2448	70 mm (2 3/4")	23 5/8	47 5/8	4 3/4	800	<1	37 lbs
CM 2448	100 mm (4")	23 5/8	47 5/8	6 1/2	800	<1	43 lbs
CM 2424	53 mm (2")	23 5/8	23 5/8	4 3/4	400	<1	20 lbs
CM 2424	70 mm (2 3/4")	23 5/8	23 5/8	4 3/4	400	<1	22 lbs
CM 2424	100 mm (4")	23 5/8	23 5/8	6 1/2	400	<1	27 lbs