

CFM Terminal Diffusers

General Information

CFM Terminal Diffusers provide cost effective HEPA or ULPA filtered air for cleanrooms and laminar flow devices.

Worldwide applications include but are not limited to aerospace, automotive, electronics, plastics, pharmaceuticals and semiconductor manufacturing.

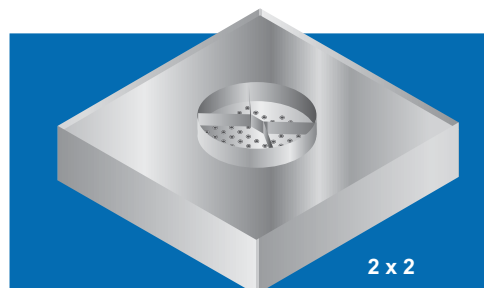
Available in 99.99% and 99.9995% efficiencies, each filter is tested to accepted procedures as described by the Institute of Environment Sciences (IEST) and/or ISO standards.

Construction

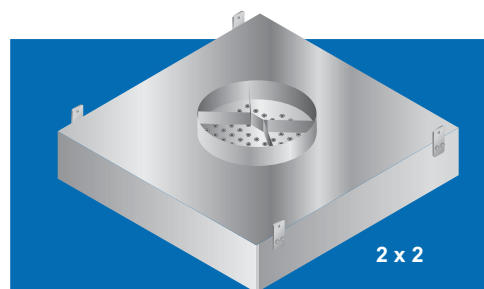
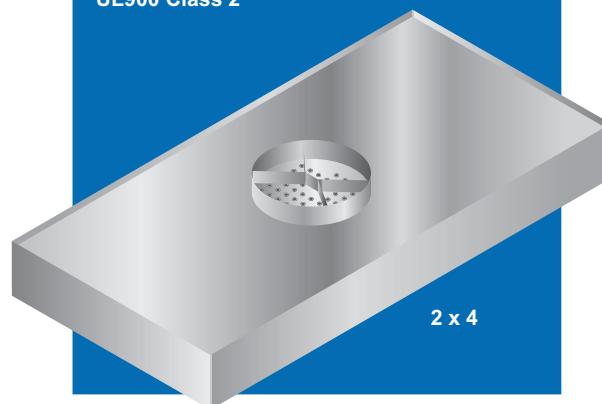
- Anodized extruded aluminum frames.
- Potting material completely encapsulates pleats on all four sides.
- Hood is galvanized steel.
- Available with 10" or 12" duct collar.
- Damper is adjustable from roomside.
- A white epoxy powder coated steel grille protects filter media from damage.
- Centerboard with access port for disc adjustment and challenge injection.
- Seismic holes or tabs provided for compliance with UBC requirements and standards.
- All Materials used shall be fire retardant and self extinguishing in accordance with Underwriter Laboratories UL 586 and UL900 Classifications.

Features

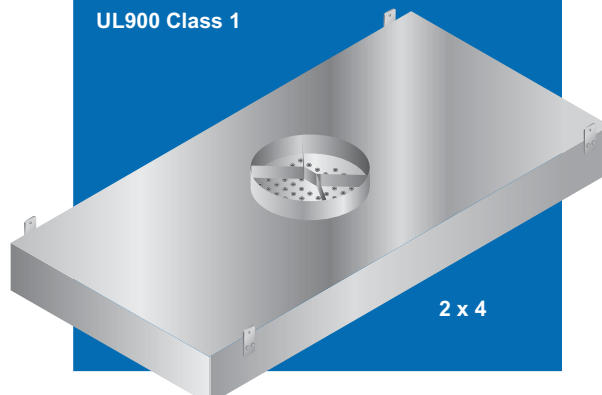
- Low pressure drop.
- Uniform Airflow @ 100 FPM +/- 20%.
- 2" High collar for a secure connection.
- Lightweight for easy installation.
- Class 2 HEPA 2.0" (51mm) Media Pack.
- Class 2 ULPA 2.5" (63mm) Media Pack.
- Class 1 HEPA 1.61" (41mm) Media Pack.
- Class 1 ULPA 1.61" (41mm) Media Pack.



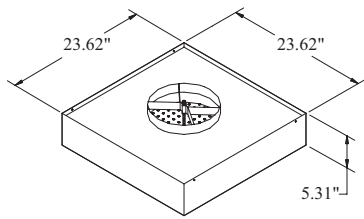
UL900 Class 2



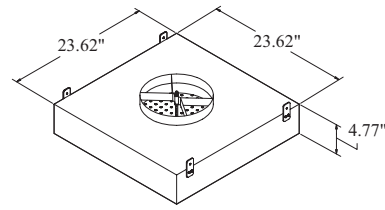
UL900 Class 1



Data For CFM Terminal Diffusers

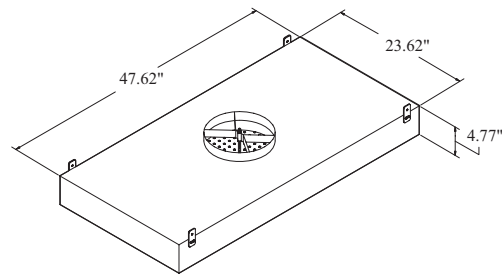
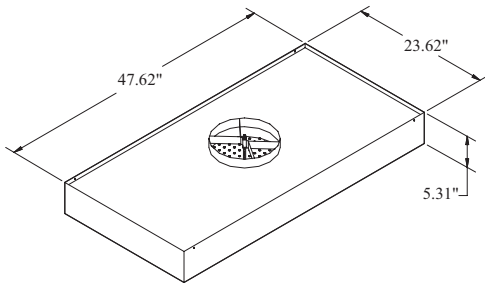


Class 2



Class 1

NOTE: Collar adds 2" to height



Ordering Information

Mfg. Code	HEPA	UL 900	Nominal Size	Actual Size (In)	Inlet Collar	Media Pack	Efficiency	Pres. Drop @ 100 Fpm	Ship Weight
11145*	Class 2	2 x 2	2 x 2	23.62 x 23.62 x 5.31	10	2.0"	99.99% @ 0.3	0.54"wg	25 lbs.
11146*	Class 2	2 x 2	2 x 2	23.62 x 23.62 x 5.31	12	2.0"	99.99% @ 0.3	0.54"wg	25 lbs.
11147*	Class 2	2 x 4	2 x 4	23.62 x 47.62 x 5.31	10	2.0"	99.99% @ 0.3	0.54"wg	32 lbs.
11148*	Class 2	2 x 4	2 x 4	23.62 x 47.62 x 5.31	12	2.0"	99.99% @ 0.3	0.54"wg	32 lbs.
ULPA									
11149	Class 2	2 x 2	2 x 2	23.62 x 23.62 x 6.21	10	2.5"	99.9995% @ 0.12	0.70"wg	25 lbs.
11150	Class 2	2 x 2	2 x 2	23.62 x 23.62 x 6.21	12	2.5"	99.9995% @ 0.12	0.70"wg	25 lbs.
11151	Class 2	2 x 4	2 x 4	23.62 x 47.62 x 6.21	10	2.5"	99.9995% @ 0.12	0.70"wg	32 lbs.
11152	Class 2	2 x 4	2 x 4	23.62 x 47.62 x 6.21	12	2.5"	99.9995% @ 0.12	0.70"wg	32 lbs.

* Stock Item

Ordering Information

Mfg. Code	HEPA	UL 900	Nominal Size	Actual Size (In)	Inlet Collar	Media Pack	Efficiency	Pres. Drop @ 100 Fpm	Ship Weight
11134	Class 1	2 x 2	2 x 2	23.62 x 23.62 x 4.77	10	1.61"	99.99% @ 0.3	0.54"wg	34 lbs.
11135	Class 1	2 x 2	2 x 2	23.62 x 23.62 x 4.77	12	1.61"	99.99% @ 0.3	0.54"wg	34 lbs.
11137	Class 1	2 x 4	2 x 4	23.62 x 47.62 x 4.77	10	1.61"	99.99% @ 0.3	0.54"wg	50 lbs.
11138	Class 1	2 x 4	2 x 4	23.62 x 47.62 x 4.77	12	1.61"	99.99% @ 0.3	0.54"wg	50 lbs.
ULPA									
11144	Class 1	2 x 2	2 x 2	23.62 x 23.62 x 4.77	10	1.61"	99.9995% @ 0.12	0.70"wg	34 lbs.
11141	Class 1	2 x 2	2 x 2	23.62 x 23.62 x 4.77	12	1.61"	99.9995% @ 0.12	0.70"wg	34 lbs.
11142	Class 1	2 x 4	2 x 4	23.62 x 47.62 x 4.77	10	1.61"	99.9995% @ 0.12	0.70"wg	50 lbs.
11143	Class 1	2 x 4	2 x 4	23.62 x 47.62 x 4.77	12	1.61"	99.9995% @ 0.12	0.70"wg	50 lbs.

Optional Thermal Insulation

19001 2 x 2 Insulation Blanket, 1.5" Gray Vinyl

19004 2 x 2 Insulation Blanket, 1.5" Foil

19002 2 x 4 Insulation Blanket, 1.5" Gray Vinyl

19005 2 x 4 Insulation Blanket, 1.5" Foil

GS Terminal Diffusers

Gel Seal Style HEPA or ULPA Filter Replaceable From Roomside

GS Terminal Diffusers are ideal for pharmaceutical companies, manufacturers of medical devices and companies in highly regulated industries. The GS series feature a gel channel on the upstream side of the final filter which provides a leak-free seal between the filter and the housing.

GS Terminal Diffusers feature a HEPA or ULPA filter replaceable from roomside while the filter housing remains in place.

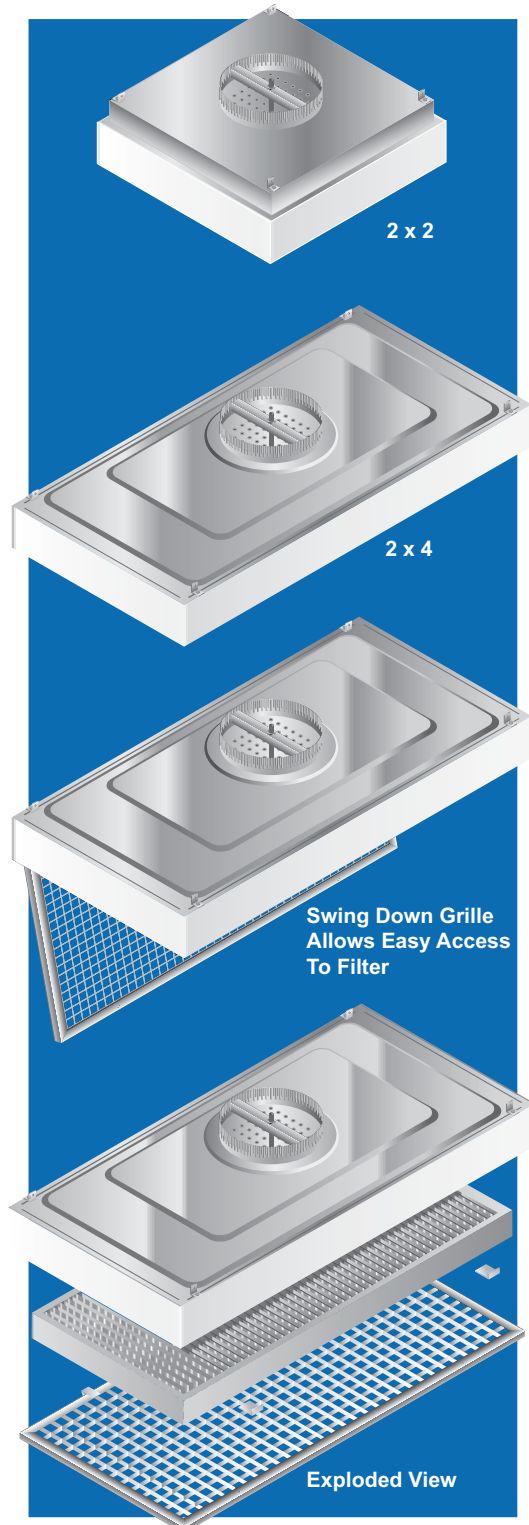
The white powdercoated housing, fabricated from 20 gauge steel, is positively sealed to a hood fabricated from galvanized steel.

A 10" or 12" diameter inlet collar at the center of the filter hood allows for simple field connection to the main air supply using flexible duct.

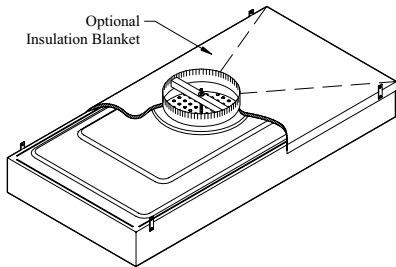
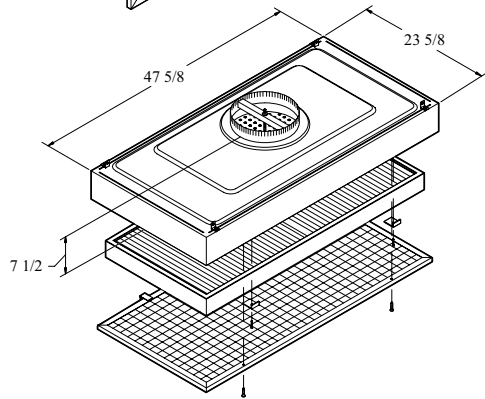
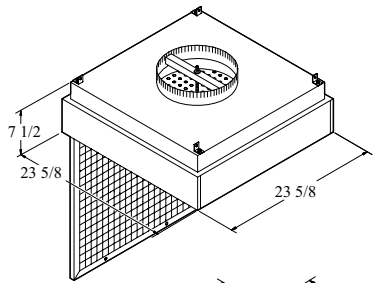
The damper assembly is adjustable from within the room and is supported by a damper support channel permanently attached to the filter hood duct collar. A perforated damper disc is mounted on threaded rod and a guide provides screwdriver adjustments of the damper assembly from roomside.

Final filters are protected with a white epoxy diamond pattern grille and are tested according to accepted procedures as described by the Institute of Environmental Sciences (IEST) and/or ISO standards. The standard HEPA filter is 99.99% eff. and an ULPA grade 99.9995% eff. filter is available as an option.

A polystyrene eggcrate grille in an anodized aluminum frame is hinged to open, permitting removal of the filter without removing the unit from the ceiling. Optional perforated stainless steel or aluminum grilles are available.



Data & Specifications for GS Terminal Diffusers



Optional Thermal Insulation

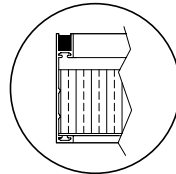
CRF Style Filter Data: The gel seal style HEPA Filter is designed for 90 FPM average face velocity @ Initial 0.47 w.g and has a rated efficiency of 99.99% @ 0.3 micron or larger.

An anodized aluminum frame holds the 53mm media which is protected by a diamond pattern white epoxy coated steel grille. Final filters are replaceable from roomside.

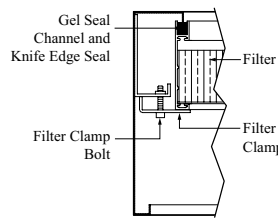
Filter Dimensions: 20-5/8" x 20-5/8" x 3" for 2x2 units and 20-5/8" x 44-5/8" x 3" for 2x4 units.

Access Port: This port is located in the center of the filter element face and is used for introducing an up- stream challenge or measuring static pressure.

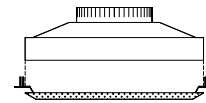
Options: ULPA Filter, thermal insulation, and a range of grille options.



Gel Seal Channel-Section View



Filter Clamp Detail



Radial Diffuser Grille

Ordering Information

Mfg. Code	Nominal Size	Filter Size (In)	Inlet Collar	Efficiency	Weight
11104	2 x 2	20.62 x 20.62 x 3	10	99.99% @ 0.3	33 lbs.
11105	2 x 2	20.62 x 20.62 x 3	12	99.99% @ 0.3	33 lbs.
11106	2 x 4	20.62 x 44.62 x 3	10	99.99% @ 0.3	57 lbs.
11107	2 x 4	20.62 x 44.62 x 3	12	99.99% @ 0.3	57 lbs.

Options

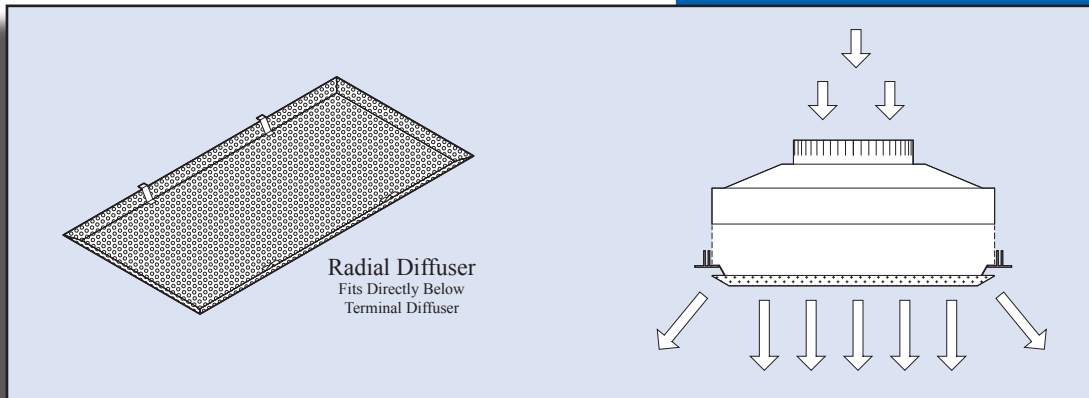
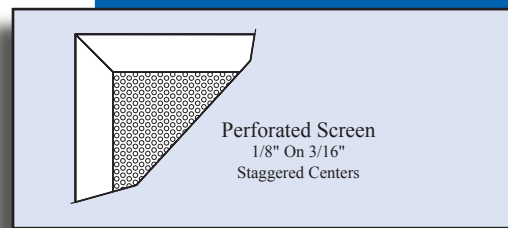
19001 2 x 2 Insulation Blanket, 1.5" Gray Vinyl	302204 2 x 2 ULPA Gel Seal CRF Filter
19002 2 x 2 Insulation Blanket, 1.5" Gray Vinyl	302203 2 x 4 ULPA Gel Seal CRF Filter
19004 2 x 4 Insulation Blanket, 1.5" Foil	
19005 2 x 4 Insulation Blanket, 1.5" Foil	Note: See a Following Page for Grille Options

Replacement Filters

Model	HEPA	Efficiency	ULPA	Efficiency
2 x 2 Units	302201	99.99% @ 0.3	302204	99.9995% @ 0.12
2 x 4 Units	302200	99.99% @ 0.3	302203	99.9995% @ 0.12

Terminal Diffusers Grille Options

All Aluminum Perforated Grille with 1/8" Round Holes Replaces the Standard Egg Crate Grille. Available with Your Choice of Clear Anodized or White Powdercoat Finish.



Provides Air Flow in 5 Directions
Below the Filter and Ceiling Line

Grilles 1/8" Round Perforated (40% Open Area)

Model No.	Description	Size
19506	CRF Anodized Aluminum Grille w/Anodized Aluminum Frame	2 x 2
19507	CRF Anodized Aluminum Grille w/Anodized Aluminum Frame	2 x 4
19508	CRF White Painted w/White Painted Frame	2 x 2
19509	CRF White Painted w/White Painted Frame	2 x 4
19511	CRF Stainless Steel Rd Grille w/Anodized Aluminum Frame	2 x 4
19512	CRF Stainless Steel Rd Grille w/Anodized Aluminum Frame	2 x 2
19514	CRF Stainless Steel Perf Grille w/Stainless Steel Frame	2 x 4

Radial Diffuser Grille

Model No.	Description	Size
19300	Radial Diffuser Grille	2 x 2
19301	Radial Diffuser Grille	2 x 4