

OVERVIEW

The replaceable terminal ceiling filter module (RTM) is a permanent high efficiency unit designed to accommodate gel seal HEPA or ULPA filters. Nominal unit sizes are 24"W X 24"L X 9"D and 24"W X 48"L X 9"D. The unit is manufactured using mill finish aluminum or -optional T304 stainless steel. Standard features are top inlet collar (10" or 12" diameter), diffuser/damper, stainless steel removable face grille and static pressure port. Each unit is subjected to a factory 4-inch positive pressure W.G. leak test. Custom designed units are available for specific requirements.

APPLICATION

PGM's replaceable terminal ceiling filter modules are designed for and not limited to the following applications:

- Laminar Flow and Clean Room Facilities
- Pharmaceutical and Biomedical Clean Rooms
- Medical Devices
- Microelectronics
- Nanotechnology
- Surgical Suites
- Neonatal Care
- Food Processing



PERFORMANCE

A butterfly damper is provided for room side adjustment of airflow into the plenum. The damper is manually adjusted with a flat head screwdriver from the clean room ceiling area.

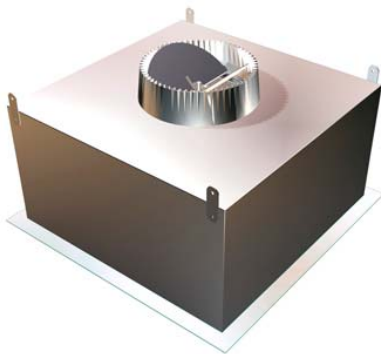
Airflow is distributed evenly over the face of the filter by a perforated diffuser plate located inside the module below the inlet/collar (units with the aerosol pipe option have a solid diffuser plate). Static pressure is measured through a separate static pressure port. An optional aerosol port can be provided for the injection of an aerosol agent to challenge the filter after installation in the RTM.

INSTALLATION

The RTM's are designed to fit into T-bar gasket ceiling grid system, gel-seal ceiling grid system or a solid ceiling system. A continuous perimeter knife-edge-inside the module allows a positive seal between the unit and the gel of the HEPA or ULPA filter. Room side access allows filters to be easily installed and sealed into place with aluminum or -optional T304 stainless steel retainer tabs. Retainer tabs are secured by four threaded stainless steel studs and capped with stainless steel acorn nuts. The stainless steel perforated grille protects the filter media and assists laminar air dispersal. Hand tightened acorn nuts hold the grille in place.

CONSTRUCTION

- Module is manufactured from either 0.063 aluminum-optional- 16 gauge T304 stainless steel.
- Collar is manufactured from 0.040 aluminum-optional- 20 gauge T304 stainless steel. In addition, the collar is both crimped and dimpled in order to easily connect to flex duct.
- Diffuser is manufactured out of perforated aluminum. A solid aluminum diffuser plate is used when the aerosol pipe option is requested.
- Butterfly damper comes in 8", 10" or 12" diameters.



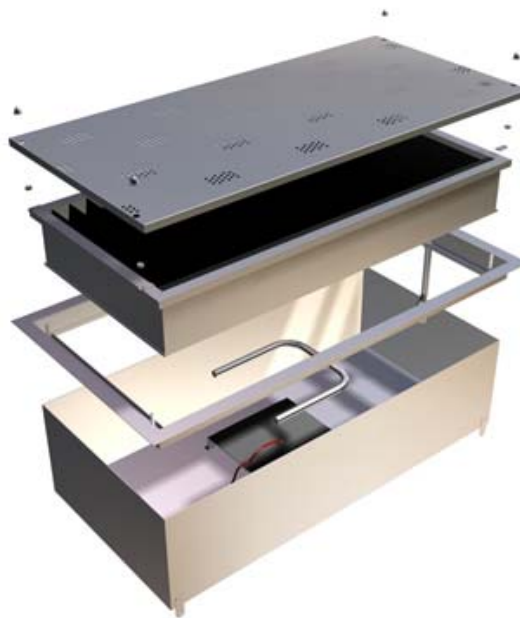
- Welding is performed on all seams in order to prevent air leakage. Silicone caulking is also applied to the seams.
- DOP Port is used inject upstream aerosol concentration during certification/ static pressure can also be measured.
- Perforated Stainless Steel Grille fits flush with housing and is removable. (22 gauge/40% open)

ADDERS

- Removable Stainless Steel Perimeter Trim
- Foil Back Insulation
- Hanging Tabs
- Horizontal Flow
- 2" Extended Stainless Steel Grille
- Aerosol Dispersion Quick Disconnect Coupling
- Aerosol Dispersion Nozzle
- Heavy Duty Butterfly Damper
- Side Inlet
- Non-standard Depth

PRODUCT SPECIFICATIONS

Model No.	Length	Width	Depth	Description
RTM1	23 5/8"	23 5/8"	9"	5/8" permanent perimeter flange
RTM2	23 5/8"	47 5/8"	9"	5/8" permanent perimeter flange
RTM3	25 3/8"	25 3/9"	9"	1 1/2 " removable trim or permanent
RTM4	25 3/8"	49 3/8"	9"	1 1/2 " removable trim or permanent



RTM MODULE

Type	Hood Dimensions (O.D. of Trim)		Depth	Trim	Inlet Location	Inlet Type	Damper	Insulation	Aerosol Dispersion	Filter Guides	Grille	Hanging Tabs	Mat.
RTM	23	47	12	1	TS	10R	B	2	1	1	1	1	304 - (SP)

Housing Type
RTM - Replaceable Terminal Module

Hood Dimensions (O.D. of Trim)
23 - 23 - 23 5/8" X 23 5/8" (5/8" Trim)
23 - 47 - 23 5/8" X 47 5/8" (5/8" Trim)
25 - 25 - 25 3/8" X 25 3/8" (1-1/2" Trim)
25 - 49 - 25 3/8" X 49 3/8" (1-1/2" Trim)

Hood Depth
9 - 9"
12 - 12"
14 - 14"

Trim Type
1 - 5/8" Permanent Trim (For T-Bar Grid)
2 - 5/8" Permanent Trim (Bolted in Place)
3 - 5/8" Removable Trim (Riveted in Place)
4 - 1-1/2" Permanent Trim (Bolted in Place)
5 - 1-1/2" Removable Trim (Riveted in Place)

Inlet Location
LS - Long Side
SS - Short Side
TS - Top Side

Damper Type
0 - None
B - Butterfly
D - Diffuser Plate Only
G - Guillotine

Inlet Connection
06R - 6" Ribbed
06S - 6" Swaged
08R - 8" Ribbed
08S - 8" Swaged
10R - 10" Ribbed
10S - 10" Swaged
12R - 12" Ribbed
12S - 12" Swaged
14R - 14" Ribbed
14S - 14" Swaged

Insulation
0 - None
1 - Top Only
2 - Top & Sides

Aerosol Dispersion
0 - No
1 - Yes (Plastic Standard Plug)
2 - Yes (Brass Plug)
3 - Yes (Quick Disconnect)

Filter Guide
0 - No
1 - Yes

Hanging Tabs
0 - No
1 - Yes

Grille
0 - None
1 - Flush SST w/ (4) Acorn Nuts
2 - 2" Extended SST w/ (4) Acorn Nuts
3 - Removable Hinged Grille w/ (2) Acorn Nuts on one side
4 - Permanent Hinged Grille w/ (2) Acorn Nuts on one side

Material
304 - 16GA 304 Stainless
304L - 16GA 304L Stainless
316 - 16GA 316 Stainless
316L - 16GA 316L Stainless
AL - .063 Aluminum

SPECIAL HOUSING
If housing requires non-standard properties, it will be given the (SP) designation and will be noted on the drawing.

RTM

Submittal Data: Request for Quote
 Purchase Order **P.O.#**

Customer:

Requested Ship Date:

P&G Model #

Size: 2 x 2 (Filter Dimension 21-3/4" x 20"OD)
 2 x 4 (Filter Dimension 21-3/4" x 44"OD)

Qty: _____

Qty: _____

Aluminum or Stainless Construction Material:

Type: 14ga Aluminum 16ga 304 S.S. 16ga 316 S.S.

Stainless steel L-Grade: No Yes

Depth: 9" (2" media pack)
 12" (2" or 4" media pack)
 14" (2", 4", or 6" media pack)

Insulation:
 None
 2" Foil Back

Damper / Inlet Size:

8" 10"
 12" 14"

Inlet Style:

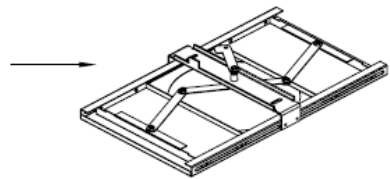
Ribbed 
 Swaged 

Aerosol Dispersion Pipe: (DOP)

Not required Yes **If Yes type of plug:**
 Plastic (Standard) Brass Quick disconnect

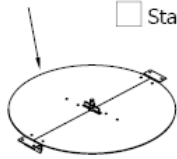
Damper Style:

Guillotine



Minimum 12" Depth

Butterfly



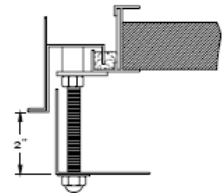
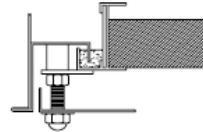
Standard duty (Aluminum construction)

Heavy duty (Stainless construction)

Face Guard / Grille Options:

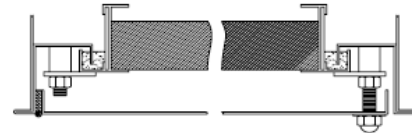
Flush with 4 Acorn nuts

2" Extended with 4 Acorn nuts



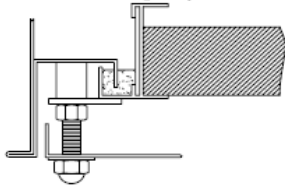
Permanent hinged grille with 2 Acorn nuts on one side.

Removable hinged grille with 2 Acorn nuts on one side.

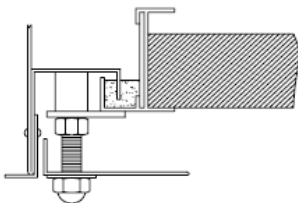


Trim Options:

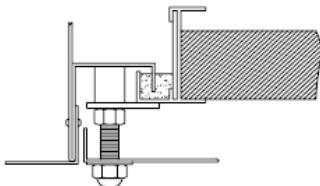
5/8" Trim for T-Bar grid (Trim is made in to hood body)



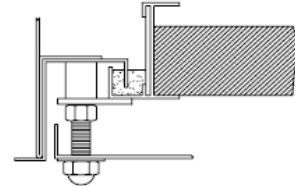
5/8" Removable trim (Trim is riveted by installer to body)



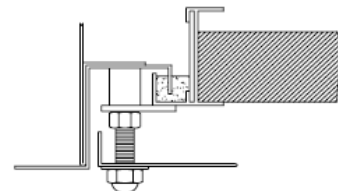
1-1/2" Removable trim (Trim is riveted by installer to body)



5/8" Permanent trim (Trim and knife edge is bolted to body by manufacturer)



1-1/2" Permanent trim (Trim and knife edge is bolted to body by manufacturer)

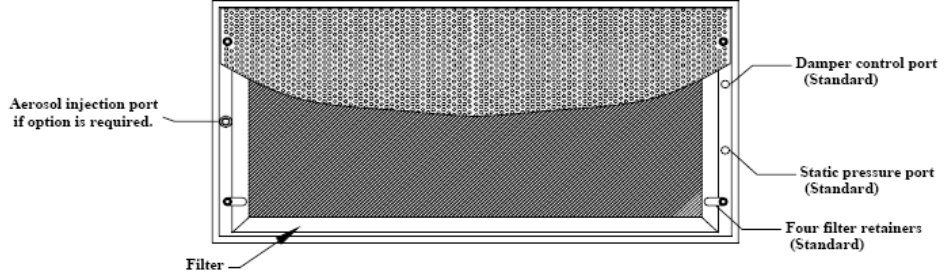
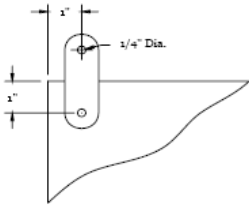


Notes and Special Instruction: _____

RTM

Hanging Tabs:

Not required Yes

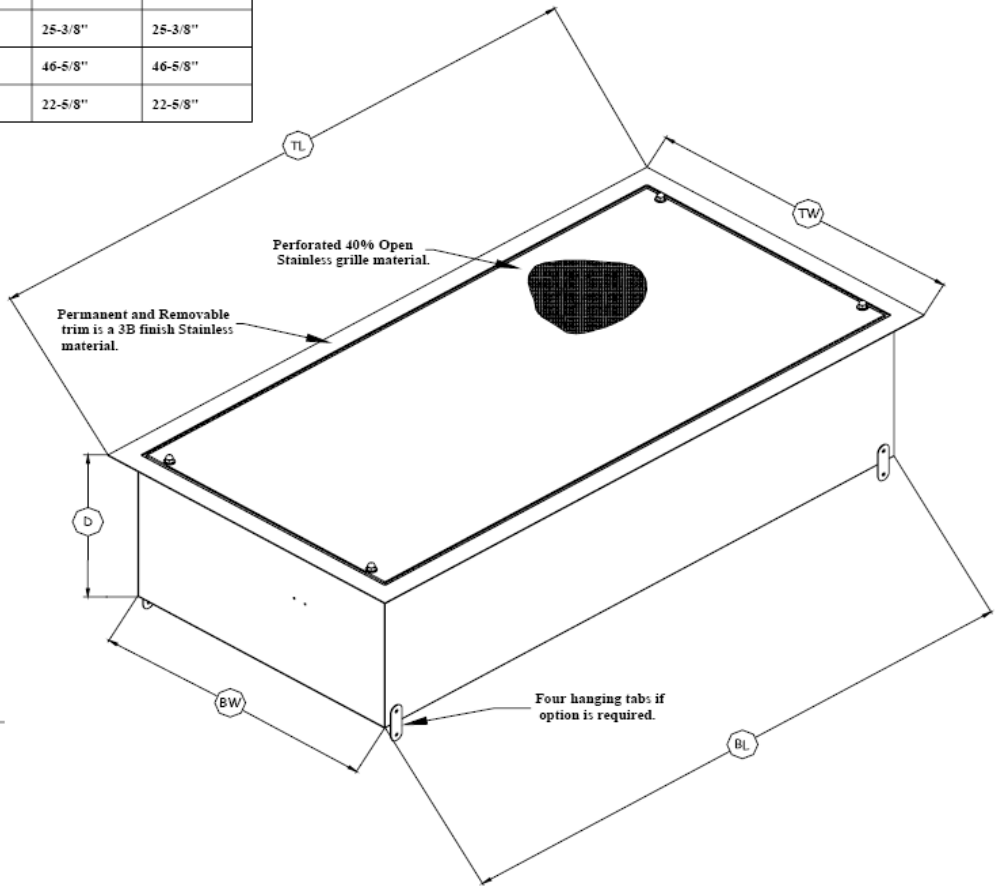


Room Side View and Port Location

The hood body shall be seal welded and caulked. The inlet shall be intermittently welded and caulked. The final assembly shall be tested per internal manufacturer procedure, PGM-502 Typical, assuring the unit assembly to be free of any leaks.

Item:	Units with 5/8" Trim		Units with 1-1/2" Trim	
	2 x 2	2 x 4	2 x 2	2 x 4
Trim Length (TL)	23-5/8"	47-5/8"	25-3/8"	49-3/8"
Trim Width (TW)	23-5/8"	23-5/8"	25-3/8"	25-3/8"
Body Length (BL)	46-5/8"	46-5/8"	46-5/8"	46-5/8"
Body Width (BW)	22-5/8"	22-5/8"	22-5/8"	22-5/8"

Depth Dimension "D"	
2" media pack	9"
2" or 4" media pack	12"
2", 4" or 6" media pack	14"



Approval Signature / Date: _____

P&G MANUFACTURING

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Notes and Special Instruction: _____