

DESCRIPTION:

The Periflow Operating Room System provides control over particulate matter within the operating room environment. This system provides the highest standard of air cleanliness for patients undergoing minor procedures to major surgeries.

CONSTRUCTION:

Available in all aluminum, stainless steel face and aluminum backpan and all stainless steel construction

APPLICATION:

Custom Design — each system is custom designed and precisely fabricated to accommodate the specialized mechanical needs of today's operating room environments

Compact Design — by its compact yet efficient design, the Periflow system allows the designer the flexibility to properly provide for all the various components competing for space above the operating room ceiling

Self-balancing — the unique loop system design is self-balancing and eliminates the need to re-calibrate after the system is set up, thus reducing startup costs

ACCESSORIES:



VAV



CAV



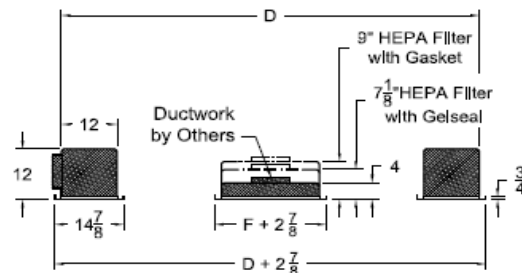
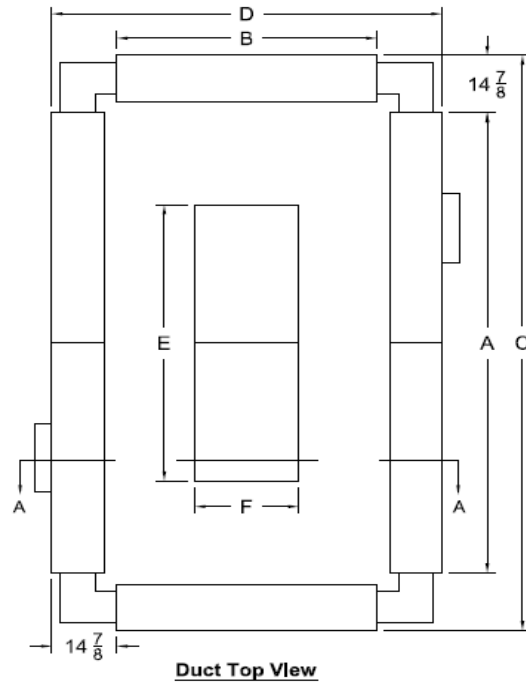
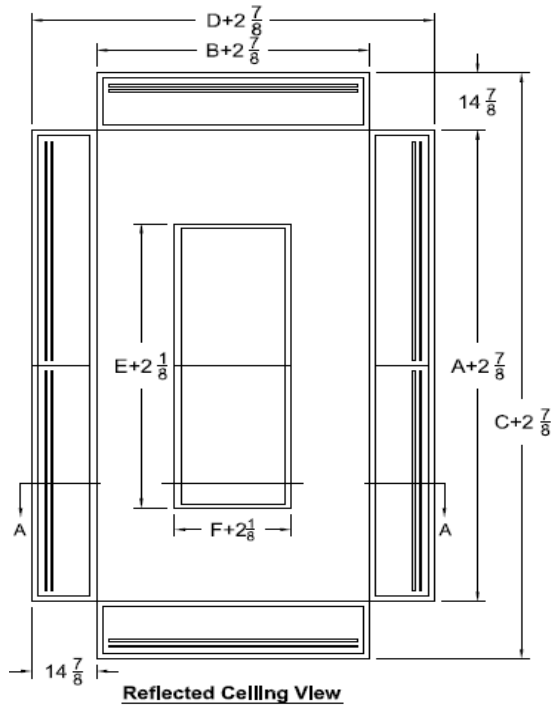
DUCT TYPE ELECTRO-HEATER



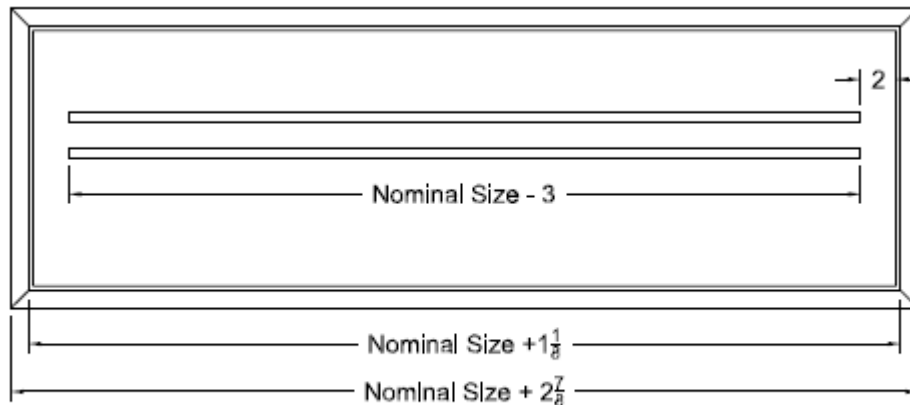
SOUND ATTENUATOR



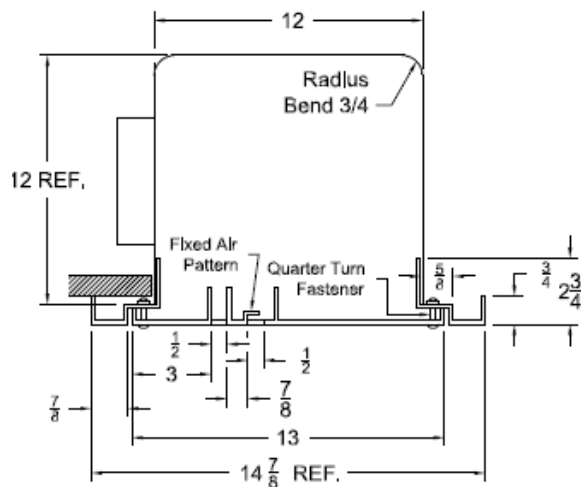
STANDARD SIZES:



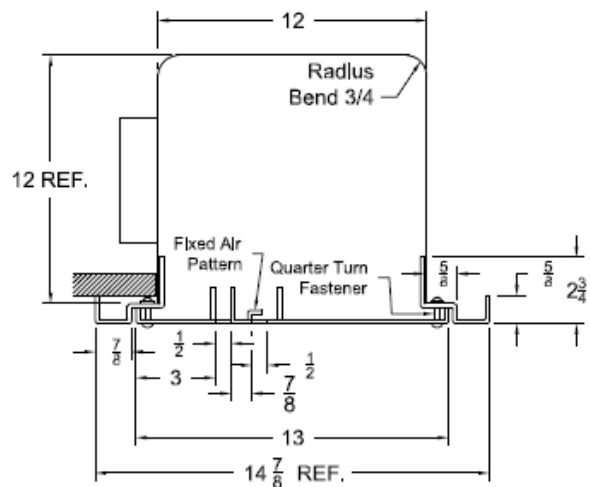
Model	Nominal Plenum Size		Overall Foot Print		Center Diffusers				System CFM Range	
	A	B	C	D	Over All		Qty	Size	Minimum	Maximum
					E	F				
84	96	48	A + 30	B + 30	60	24	1	60 x 24	900	1620
104	120	48			72	24	2	36 x 24	1050	1890
124	144	48			96	24	2	48 x 24	1200	2160
85	96	60			60	24	1	60 x 24	980	1760
105	120	60			60	24	2	48 x 24	1130	2030
125	144	60			60	24	2	48 x 24	1280	2300
66	72	72			48	36	2	36 x 24	900	1620
86	96	72			48	48	2	48 x 24	1050	1890
106	120	72			48	48	2	48 x 24	1200	2160
126	144	72			48	48	2	48 x 24	1350	2430
88	96	96			48	48	2	48 x 24	1200	2160
108	120	96			96	24	2	48 x 24	1350	2430
128	144	96			72	48	3	48 x 24	1500	2700
148	168	96			72	48	3	48 x 24	1650	2970
1010	120	120			72	48	3	48 x 24	1500	2700
1210	144	120			72	48	3	48 x 24	1650	2970



Face View (Both Models)



End View (AL)



End View (SS)

MAPERIFLOW - OPERATING ROOM USA DISTRIBUTION SYSTEM



PERIFLOW SYSTEM PERFORMANCE DATA CENTER PANEL

CFM per sq. ft.	10	20	30	40	50	60	70	80
Ps	0.06	0.13	0.21	0.30	0.40	0.48	0.58	0.69
NC	< 20	< 20	23	26	32	34	39	42
Velocity at 6-ft (single panel)	20	35	50	65	70	80	90	100
Velocity at 6-ft (multi-panels 1)	20	35	50	70	80	90	100	110
Velocity at 6-ft (multi-panels 2)	25	40	60	80	100	110	120	130

PERFORMANCE NOTES FOR PERIFLOW SYSTEM — CENTER PANEL

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

Ps Static pressure = $P_t - P_v$ (inches of water column)

Throw vertical throw at a 50 fpm terminal velocity and temperature differential of 15°

NC Noise criterion, sound pressure level NC ratings are based on sound power

level (Lw) re: 10⁻¹² watts minus a 10dB room attenuation in all octave bands

maximum inlet velocity of 500 fpm. NC based on center panel area of 4 square feet.

To calculate NC for other panel areas, add the result of the following equation to the

NC value from table above: NC adjustment = $10 \times \text{Log}(\text{multi-panel area} / 4)$

Multi-panels 1 - Average velocity at 6 feet for adjacent panels totaling 15 to 30 square feet

Multi-panels 2 - Average velocity at 6 feet for adjacent panels totaling more than 30 square feet

PERIFLOW SYSTEM PERFORMANCE DATA PERIMETER PANEL

CFM per linear ft.	20	30	40	50	60	70	80	80
Ps	0.02	0.03	0.06	0.09	0.13	0.18	0.23	0.69
Throw (ft)	5	6	7	8	9	10	11	42
NC	< 15	< 15	< 15	< 15	18	21	25	130

PERFORMANCE NOTES FOR PERIFLOW SYSTEM — PERIMETER PANEL

All data is tested in accordance with ANSI/ASHRAE 70-2006.

DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

Ps Static pressure = $P_t - P_v$ (inches of water column)

Throw vertical throw at a 50 fpm terminal velocity and temperature differential of 15°

NC Noise criterion, sound pressure level NC ratings are based on sound power

level (Lw) re: 10⁻¹² watts minus a 10dB room attenuation in all octave bands

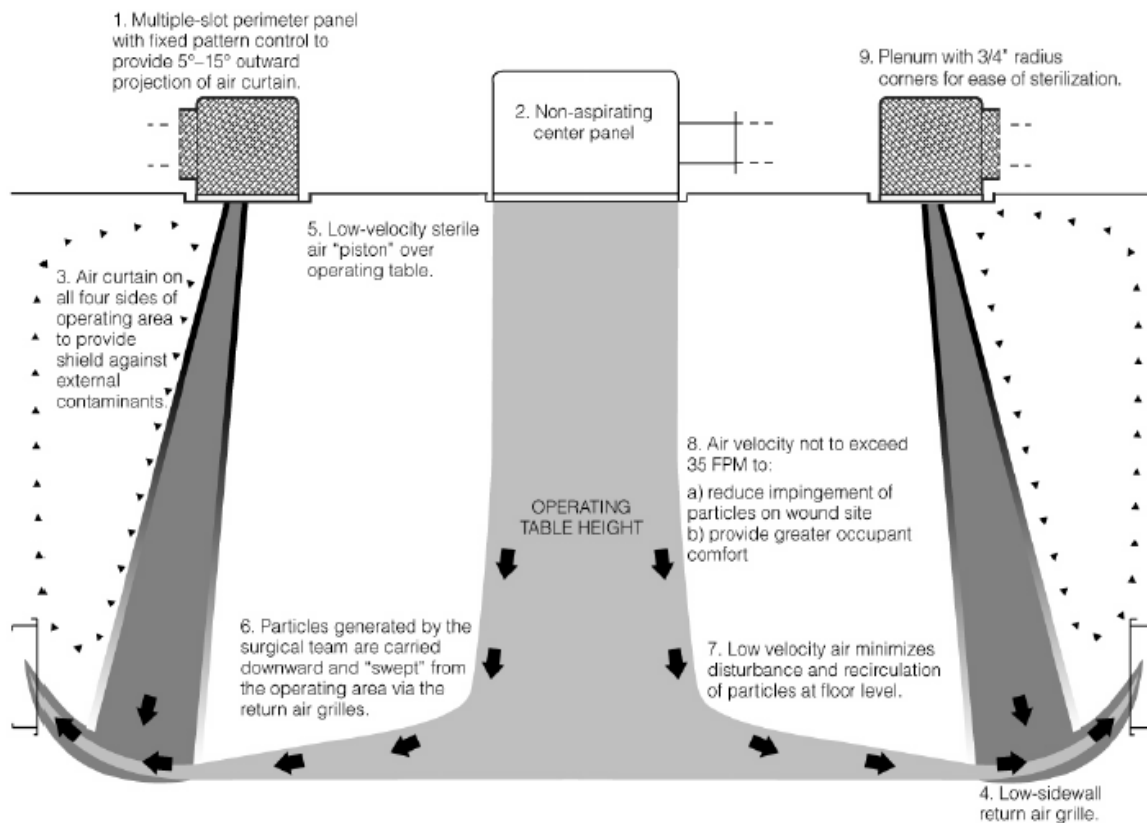
maximum inlet velocity of 500 fpm. NC based on center panel area of 4 square feet.

To calculate NC for other panel areas, add the result of the following equation to



PERIFLOW SYSTEM SPECIFICATIONS

HOSPITAL OPERATING ROOM AIR DISTRIBUTION SYSTEM — ALUMINUM, STAINLESS STEEL, MODEL PERIFLOW



- Air outlets shall be model Periflow manufactured by GMCAIR. The air distribution and particle control for the operation room shall consist of a non-aspirating center diffuser providing air supply over the operating table. The air velocity from the center diffuser shall not exceed 40 fpm at operating table height. An air curtain shall be provided from fixed, nonadjustable multiple slot panels surrounding the operating table. The air curtain shall not exceed 60 fpm and shall project air outward at not less than a 5% angle, but no more than a 15% angle, from the operating table. Systems that do not contain an

air curtain as an inherent part of their design shall not be acceptable.

- All components of the system shall be of all aluminum, stainless steel face and aluminum backpan or all stainless steel construction.

- Aluminum — factory supplied plenums, center and perimeter panels shall be aluminum construction. All exposed surfaces shall be supplied with a 01 white finish. An unpainted finish shall not be acceptable.

- Stainless steel face and aluminum backpan — factory supplied plenums shall be aluminum construction and the faces and perimeter panels shall be stainless steel construction. All exposed surfaces shall be supplied with a #23 satin polish. A painted or coated finish is not



recommended.

- Stainless steel — factory supplied plenums, center and perimeter panels shall be stainless steel construction. All exposed surfaces shall be supplied with a #23 satin polish. A painted or coated finish is not recommended.
- Each center diffuser shall be provided with a single inlet and the perimeter plenum system shall be supplied with two connections. Systems utilizing more than two connections to the perimeter plenum shall not be acceptable. A perforated baffle supplied by the system manufacturer shall be permanently attached to both the center and perimeter panels to provide equal air distribution over the diffuser face. Both center diffuser faces and perimeter panel faces shall be retained by 1/4 turn fasteners for ease of removal and sterilization. The manufacturer shall supply clip-on safety cables to retain the faces after the 1/4 turn fasteners are released.
- All systems shall have been tested in accordance with the “Recommended Procedure for the Determination of Microbiological Air Cleanliness,” as published by the committee on Operating Room Environments of the American College of Surgeons (January, 1976 Bulletin) by an independent Microbiological Testing Laboratory. The proposed system shall have met the requirements for

Class 1 Microbiological Air Cleanliness as set forth in this procedure. Copies of the Independent Laboratory’s test report shall be provided to the engineer for prior approval. The manufacturer shall submit a listing of 25 or more systems of the setup as shown. Performance Specification The manufacturer shall provide published performance data. Data has been tested in accordance to ANSI/

ASHRAE Standard 70-2006. Paint Specification GMCAIR 01 paint finish is an anodic electrodeposition Melamine cross linking thermo set acrylic enamel finish, conforming to no less than 9 specific

ASTM testing requirements covering a full range of physical properties. The 01 finish has been tested to exceed ASTM D4752 Double MFK minimum 100 rubs. This test demonstrates GMCAIR products’ ability to withstand continuous cleaning with harsh cleaners and disinfectants. Following are the ASTM specifications for physical properties.

ASTM D523-89	Gloss 60 Degree	70-80
ASTM D3363-92A	Pencil Hardness	HB-H
ASTM D3395-95	Crosshatch	4B-5B
ASTM D2794-93	Direct Impact	100 in.lb.min.
ASTM D2794-93	Reverse Impact	60 in.lb.min.
ASTM B177-100	Salt Spray	100 hours
ASTM D1735-92	Humidity	500 hours
ASTM D870-92	Water Soak	250 hours
ASTM D4752	Double MEK rubs	100

MAPERIFLOW - OPERATING ROOM USA DISTRIBUTION SYSTEM



ORDER PARAMETERS

Model	Nominal Plenum Sizes		Overall Foot Print		Center Diffusers				SystemCFM Range	
	A	B	C	D	E	F	Qty	Size	Minimum	Maximum
84	96	48	A + 30"	B + 30"	60	24	1	60x24	900	1620
104	120	48			72	24	2	36x24	1050	1890
124	144	48			96	24	2	48x24	1200	2160
85	96	60			60	24	1	60x24	980	1780
105	120	60			96	24	2	48x24	1130	2030
125	144	60			96	24	2	48x24	1280	2300
66	72	72			48	36	2	36x24	900	1620
86	96	72			48	48	2	48x24	1050	1890
106	120	72			48	48	2	48x24	1200	2160
126	144	72			96	24	2	48x24	1350	2430
88	96	96			48	48	2	48x24	1200	2160
108	120	96			96	24	2	48x24	1350	2430
128	144	96			72	48	3	48x24	1500	2700
148	168	96			72	48	3	48x24	1650	2970
1010	120	120			72	48	3	48x24	1500	2700
1210	144	120			72	48	3	48x24	1650	2970