

TAD Series
This series of radial face, critical room supply diffusers offer 90° or 180° air patterns. Available in aluminum or stainless steel construction. A HEPA filter backpan model is also available.



Radiaflo™ Series
This series of flush face, radial critical room supply diffusers offer a 180° air pattern. Available in aluminum or stainless steel construction. A HEPA filter backpan model is also available.



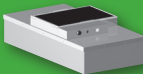
Steriflo System®
Steriflo System® is a stainless steel operating room system consisting of center and perimeter panels yielding exceptional particulate control.



Steriflex™
Steriflex™ is a modular, aluminum operating room system consisting of center and perimeter panels yielding exceptional particulate control.



5000, 5000HF
The 5000 series are low velocity, non-aspirating, perforated laminar flow panels with aluminum, stainless steel, and cold rolled steel construction. A HEPA filter backpan model is also available.



CRFF Series
The CRFF series of critical room fan filter units feature PSC or ECM motors and multiple filter options.

TAD, TADSS, TADHF, TADSSHF, TAD Backpan

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Introduction: Sterilflo System®

Krueger has been actively engaged in the study, design, and research of hospital operating room air distribution systems since 1967. At Krueger, we are concerned with obtaining the highest quality systems representative of the latest technology. Emerging surgical techniques demand that we continue viewing the hospital operating room air distribution system as an evolving research project; as more information is gathered from which to establish design criteria, Krueger will develop better systems at lower cost.

One proven method of providing a sterile environment in the operating room is the Sterilflo System®.

The Sterilflo System® is designed to adapt to the ceiling of the modern operating room. Unlike a straight laminar solution, which requires an unbroken array of diffusers, the Sterilflo System® utilizes specially designed laminar panels in conjunction with perimeter panels that produce an air curtain of a known profile. This permits discrete locations of the laminar panels, making it possible to place surgical lights, gas columns, intravenous tracks, and other items in logical locations between the perimeter and center panels. Thus, the Sterilflo System® adapts to the ceiling plan rather than adapting the ceiling plan to the system.

Every aspect of the Sterilflo System® has been thoroughly tested, including air flows ranging from 15 to 35 air changes per hour and reactions of various metals to germicides used to disinfect hospital operating rooms. Most importantly, Sterilflo System® installations have been tested during actual surgical procedures. The suggested test procedure published by the Committee on Operating Room Environment of the American College of Surgeons is the reference point used to determine the effectiveness of the Sterilflo System®. All tests conducted resulted in Class I Microbiological Air Cleanliness, as defined by the Committee of Operating Room Environment, American College of Surgeons Bulletin of January 1976. This is the cleanest standard defined and Krueger obtained these results, not through lab mock-ups, but during actual surgical procedures, ensuring a system of unparalleled effectiveness.

Krueger's dedicated research is backed by more than 35 years of experience. This has been achieved through on site engineering staff attendance during system startups, where we are able to gain further first-hand knowledge of how these critical components are being used in the modern operating room.

The Sterilflo System® has been installed in more than 1,000 operating rooms in leading hospitals throughout the United States, Australia, Korea, and the Middle East. These systems are providing protection to patients undergoing the most critical surgery, including total joint transplants and cardiac procedures, as well as general surgery. It is Krueger's intention to continue studying particulate control in the hospital operating room and provide the latest equipment available for use in this critical environment.



Sterilflo System®

MODEL

Sterilflo System® - Operating Room Particulate Control, Stainless Steel Construction

FEATURES

- 100% type 304 stainless steel.
- Radius corners.
- Custom layouts.
- Design specific drawings.
- Tested during actual surgical procedures.
- 1/4 turn fasteners for cleaning.
- Class 1 Microbiologic Clean Air certification.
- Factory certifications (optional).

Sterilflo System® Principles of Operation

Air distribution systems for hospital operating rooms should be viewed as mere comfort condition devices unless they can provide particulate control. Systems capable of providing particulate control must provide for one or more of the four basic principles used to remove particles from the operative area. These are **extraction, dilution, suppression, and isolation.**

Extraction is simply the removal of particulate matter from the supply air before it enters the room. Presently, this is accomplished by means of HEPA (High Efficiency Particle Accumulator) filters. HEPA filters can be designed to remove 99.97% of particulates 0.3 microns or larger in size. This is certainly adequate for providing clean air into the room. However, it does not address the issue of some sizes of sub-micron particles, such as viruses, nor does it account for particulates produced by the surgical staff or by the procedure itself. These must be accounted for by the remaining three principles.

Dilution is a critical requirement. The introduction of large amounts of HEPA filtered air into the room flushes contaminated air from the space rapidly, rather than leaving them suspended in the space; thus, allowing several opportunities for particles to reach the wound area of the patient. The Sterilflo System®, with its air curtain, multiplies the effect of the dilution factor much the same way as the plastic curtain or “greenhouse” once did. For all intents and purposes, the Sterilflo System® air curtain creates a room within the operating room. All air enters the operating room within the boundaries of that air curtained cube and is forced out of the cube into the remainder of the room where it exits through the exhaust or return grilles. While the air change rates in a typical operating room may be 20 per hour, inside the cube, the air change rates can be several times that! Best of all, the air curtain does not represent a physical barrier to the surgical staff; thus, assuring them of the ability to do their work unimpeded.

Suppression can be defined as the enforced directional movement of particulate matter away from the wound area. Typically, this is accomplished with laminar diffusers that are designed to provide unidirectional air movement without entraining room air. In the Sterilflo System®, the air curtain enhances the function of specially designed laminar flow panels. The curtain and panels utilize a pressure differential plus the induction and entrainment of the laminar air to provide positive movement of particulate matter downward and outward from the operative field. This permits suppression far superior to laminar devices alone.

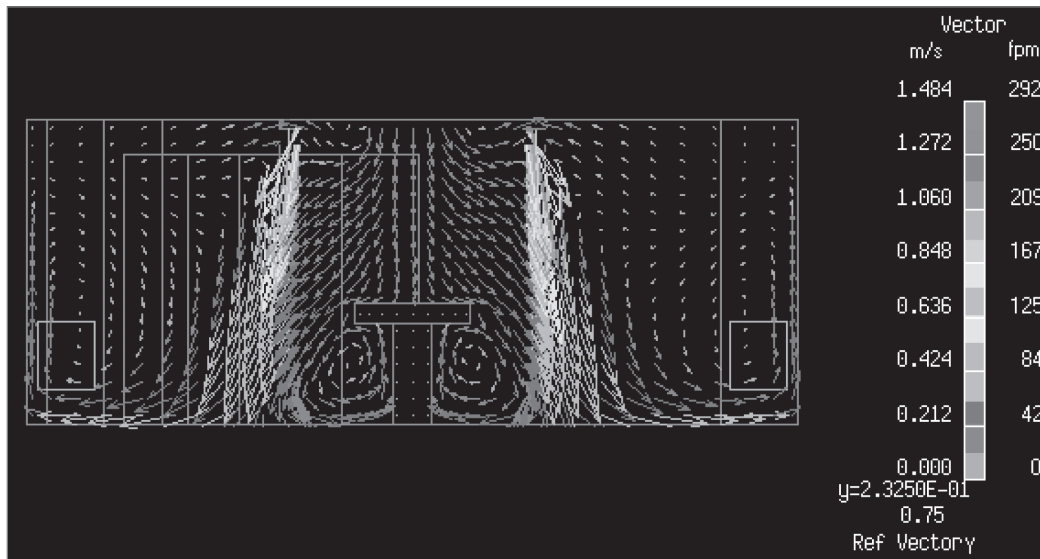
Isolation requires that the critical area where least particulate matter is desired must be maintained at the highest positive pressure relative to its surroundings. Standard design criteria require that the pressure in an operating room be at least .05” of water gage higher than the surrounding substerile corridors, scrub rooms, etc. Again, the air curtain of the Sterilflo System® enhances this effect. Since all air in the room enters through its cube, it creates a room-within-a-room effect providing higher pressure within the cube relative to the surrounding space. This not only provides double the protection from particles entering from areas outside the operating room, but also protects from particles generated within the room by personnel and equipment outside the unit’s protective barrier.

The unique combination of these principles, available only from the Sterilflo System®, provides significant reductions in particulate matter in the operative field which reduces the potential for nosocomial infections incurred during the procedure.

CRITICAL ROOM PRODUCTS

STERILFLO

STERILFLO SYSTEM® ROOM AIR DISTRIBUTION



Perforated Panel System vs. Sterilflo System®

For perforated panel systems (laminar flow diffusers) to assist in contamination control, it would be necessary to have an unbroken array of panels over and around the operating table to provide a solid mass of air down and around the patient and members of the surgical team. This is rarely, if ever, possible for several reasons.

- 1) Perforated panel distribution must be maintained at very low CFM per square foot levels in order to reduce drafts, noise, and pressure drop. This requires a large square footage of panel area to provide the air change rates required by code.
- 2) Surgical lighting must be provided at fixed locations in the ceiling in order to provide for optimum focus and lumen levels. To provide maximum benefit to the surgeon, these locations must be maintained.
- 3) Gas track or columns, IV hooks, and other such devices must often occupy the ceiling space in an operating room.

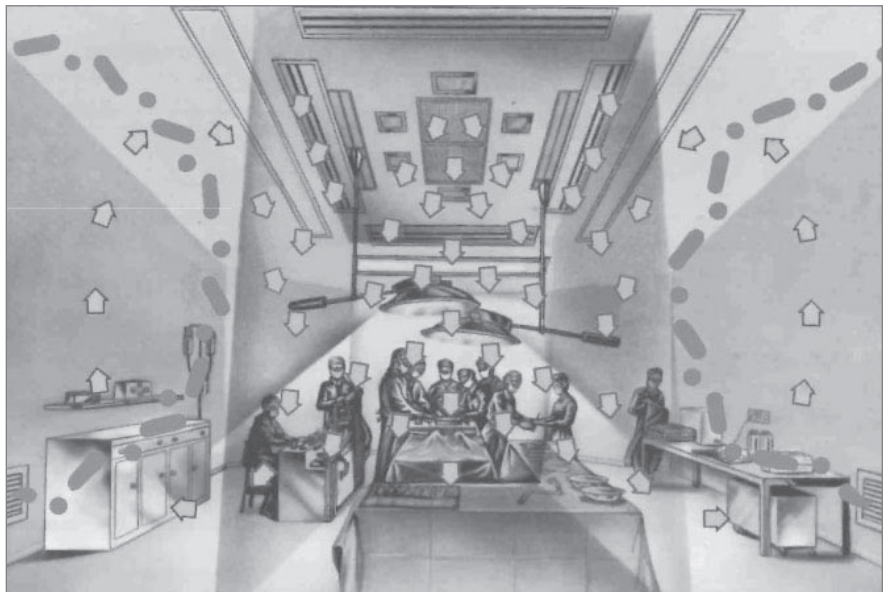
As a result of the above requirements, the normal configuration of the perforated panels is as shown in Perforated Panel System graphic above at the right. Panels are split into groups to accommodate ceiling locations for other components: surgical lights, etc. This results in multiple air streams over and around the patients and surgical team. Since these are multiple air streams, rather than a single unbroken stream, turbulence is increased, as is the possibility of infectious organisms migrating into this turbulent flow.

Alternately, the Sterilflo System®, as seen in the lower graphic to the right, shows that contaminated air between the actual operating area and the walls of the operating room impinges upon, but cannot penetrate, the curtain of sterile air and is exhausted through the return air system. At the same time, the patient and surgical team are bathed in a constant flow of clean air from the center panels.

PERFORATED PANEL SYSTEM



STERILFLO SYSTEM®



Sterilflo System® Air Quality Test #1080 Synopsis

CRITICAL ROOM PRODUCTS

The air quality test was conducted in accordance with the recommended procedure of the Committee on Operating Room Environment (C.O.R.E.) of the American College of Surgeons (as published in the January 1976 bulletin).

FACILITY DESCRIPTION

The operating room is 18' 6" x 23' x 9'6". The Sterilflo System® installed is a standard 410 model enclosing an area of approximately 7'x13' around the surgical table. Air is supplied through HEPA filters.

Room CFM:

1699 cfm - 24 A.C./hr

Perimeter CFM:

1250 cfm - 45 cfm/ft

Center CFM:

449 cfm - 39 cfm/ft²

TEST PROCEDURE

Samples of one cfm each were taken on the gross particle counter (Royco) at ten to fifteen minute intervals during the surgical procedure, starting with the opening of the incision and continuing to the final closing. Two Anderson Cascade samplers took 30 ft³ samples at 1 cfm, beginning with the opening of the incision and continued until the procedure was finished.

CONCLUSIONS

The sum of the colonies cultured from the six stages of the cascade sampler for each 30 cubic foot test proved that the air quality inside the Sterilflo System® air curtain meets the requirements for a Class I Microbiologic Air Cleanliness as defined by the Committee on Operating Room Environment. This is the cleanest class listed and the total colony counts were substantially lower than this.

TEST #1 & 2

Procedure: Open Reduction/Internal Fixation of Left Tibia
 Temperature: 70° F
 6 - 8 People in Room

Date: October 15, 1980
 R.H.53%
 Much Activity

Gross Particle Count (Royco or Climette)			Anderson Sampler At O.R. Table			Anderson Sampler Outside Clean Field		
5.0 0.5								
Time	Micron	Micron	Time	Stage	Colonies	Time	Stage	Colonies
7:59 AM	498	7767	8:16 AM	1	0	8:16 AM	1	38
8:17 AM	291	8727	8:46 AM	2	0	8:46 AM	2	7
8:28 AM	165	35474		3	0		3	4
8:38 AM	170	10878		4	2		4	8
8:55 AM	142	10135		5	1		5	8
9:05 AM	121	19787		6	2		-	-
			Total	1-6	5	Total	1-6	65
9:15 AM	182	19965		1	0	8:53 AM	1	6
9:25 AM	146	24566		2	2	9:26 AM	2	7
9:35 AM	163	4136		3	2		3	4
				4	0		4	4
				5	6		5	3
				6	2		6	0
			Total	1-6	12	Total	1-6	24

Average size distribution per stage: 1-9.8μ, 2-6.2μ, 3-3.8μ, 4-2.2μ, 5-0.9μ, e6-0.9μ

TEST #3 & 4

Procedure: Removal of Pins - Right Hip
 Temperature: 69° F
 7 People in Room

Date: October 16, 1980
 R.H. 57%
 Moderate Activity

Gross Particle Count (Royco or Climette)			Anderson Sampler At O.R. Table			Anderson Sampler Outside Clean Field		
5.0 0.5								
Time	Micron	Micron	Time	Stage	Colonies	Time	Stage	Colonies
9:37 AM	260	7000	9:38 AM	1	0	9:38 AM	1	15
9:53 AM	1010	6750	10:12 AM	2	2	10:12 AM	2	6
10:06 AM	240	15930		3	1		3	2
10:20 AM	200	13480		4	0		4	9
10:32 AM	700	19570		5	1		5	1
				6	1		-	1
			Total	1-6	5	Total	1-6	34
			10:18 AM	1	2	10:18 AM	1	0
			10:48 AM	2	3	10:48 AM	2	2
				3	0		3	1
				4	0		4	1
				5	2		5	0
				6	1		6	0
			Total	1-6	8	Total	1-6	15

Average size distribution per stage: 1-9.8μ, 2-6.2μ, 3-3.8μ, 4-2.2μ, 5-0.9μ, e6-0.9μ

Allowing for statistical probability of particle deposition on the culture media, the area inside the Sterilflo System® air curtain is approximately five times cleaner than the remainder of the operating room.

STERILFLO

Sterilflo System® Design Criteria

1. Determine the room CFM based on one of the following criteria:
 - A. Required air change rates
 - B. Load calculation
 - C. Maximum flow required for rapid cool down cycle (cardio procedures)
2. If room CFM is based on criterion A or B above, find on the accompanying table the Sterilflo System® with mid-range CFM nearest to room CFM. Alterations should be based on the criteria that CFM per linear foot of perimeter plenum and square foot of center plenum shall fall between 25 minimum and 45 maximum. The CFM per linear foot of perimeter plenum and square foot of center plenum should be approximately the same.
3. If room CFM is based on criterion C above, find on the accompanying table the Sterilflo System® with maximum CFM nearest to cool down mode CFM. Verify that normal flows do not fall below the minimum CFM of the system. Alterations should be based on the criteria that CFM per linear foot of perimeter plenum and square foot of center plenum shall fall between 25 minimum and 45 maximum. The CFM linear foot of perimeter plenum and square foot of center plenum should be approximately the same.
4. The standard height for a perimeter plenum is 12". The standard height for a center plenum is 19 3/8". This permits duct work from the center plenum to pass over the perimeter plenum. For non-standard heights, please contact your local Krueger representative.
5. Determine the number of center panels required for your design. (See examples on the following pages.) Only a single center panel is required and may be located anywhere within the inside frame of the perimeter panels. Center sections can be split into multiple panels to facilitate the placement of surgical lights, fluorescent lights, IV hooks, equipment tracks, and gas columns. Total square footage of the multiple center plenums shall equal that of the single plenum shown in the design table. For example, a single center section with a 2'x6' plenum could be replaced by two sections of 2'x3'. Each situation would have a total of 12 square feet of center plenum.
6. Only two inlets are required for a standard system, one inlet supplying the perimeter and one the center. Multiple center sections, as illustrated on the following pages, require a separate inlet for each section. Standard inlets are a height of 5" and are attached to the outboard side of the plenum. Supply air to the system is split, with 2/3 supplied to the perimeter and 1/3 to the center. Inlets should be sized not to exceed 500 fpm at the system's maximum rated CFM. If possible, locate inlets on the long side of the plenums, thereby reducing noise and pressure drop. Check inlet clearances, particularly if there is lighting immediately adjacent to perimeter plenums. (More than one inlet can be used on the perimeter and must be used if you are making alterations based on paragraph 7.)
7. Determine if there is a need to remove any connecting elbows. Standard units require four elbows. Elbows can be removed in diametrically opposed pairs to facilitate the placement of gas columns. The removal of a pair of elbows requires the placement of an additional inlet on the perimeter plenum opposite of the first inlet. Removing all four elbows requires that each side of the perimeter plenum have a separate inlet.
8. Determine if there is a need for room side HEPA removal. Preferred design places the HEPA downstream of the air handler or mixing box. However, Sterilflo System® center sections can be provided with HEPA frames if necessary. For room side HEPA removal, contact your local Krueger representative.
9. Using the tables on the following pages, verify that the system design meets the needed NC levels and pressure drop.
10. System design is based on 9' 0" ceiling heights. For other ceiling heights, contact your local Krueger representative.
11. Verify if operating table is fixed or can be reoriented based on circumstances. It may be necessary to use a square system if the table orientation is variable.
12. Although the illustrations shown are representative 'standard' systems, all systems are built to your specific order. Krueger will be happy to put its 35 years of hospital operating room experience to work for you and supply a suggested layout or submittal drawing from your reflected ceiling plans. Contact your local Krueger representative.

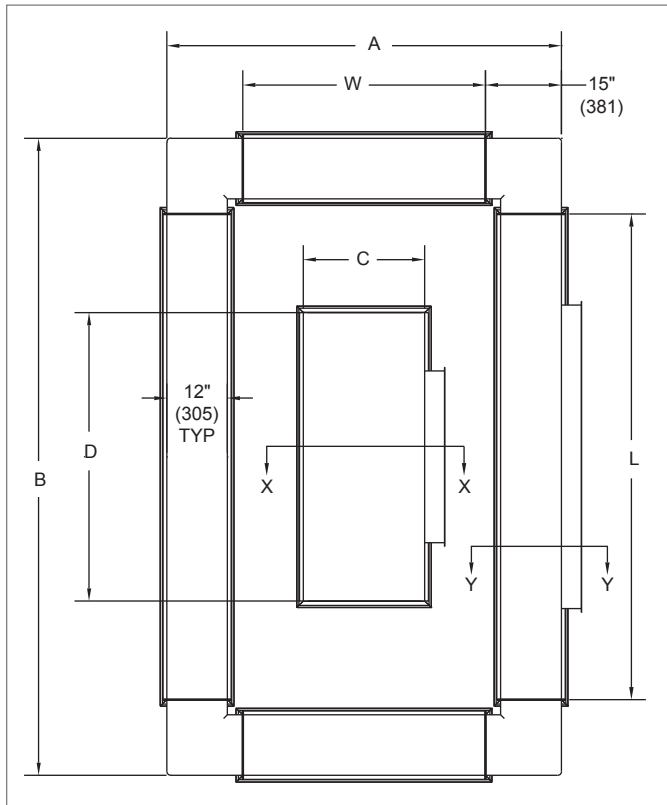
Sterilflo System® Design Criteria

STERILFLO SYSTEM®, CFM REFERENCE & DIMENSIONAL DETAILS

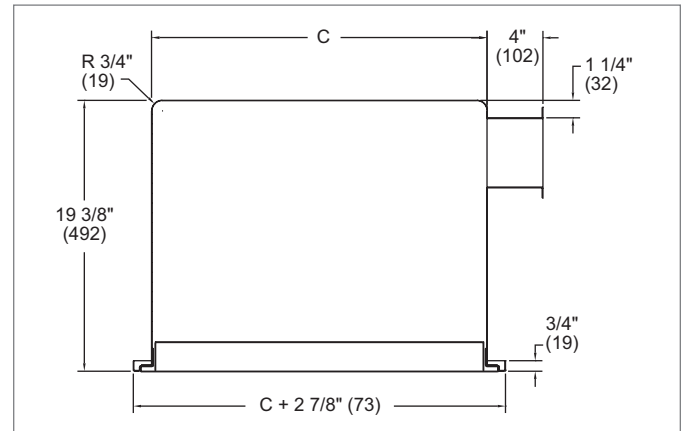
Model	W	L	A	B	C	D	Min. CFM	Max. CFM	Mid-Range CFM
48	4' 0"	8' 0"	6' 6"	10' 6"	2' 0"	6' 0"	900	1620	1300
58	5' 0"	8' 0"	7' 6"	10' 6"	3' 0"	4' 4"	980	1760	1400
410	4' 0"	10' 0"	6' 6"	12' 6"	3' 0"	4' 8"	1050	1890	1500
68	6' 0"	8' 0"	8' 6"	10' 6"	2' 6"	5' 8"	1050	1890	1500
510	5' 0"	10' 0"	7' 6"	12' 6"	2' 0"	7' 6"	1130	2030	1600
412	4' 0"	12' 0"	6' 6"	14' 6"	2' 0"	8' 0"	1200	2160	1700
610	6' 0"	10' 0"	8' 6"	12' 6"	3' 0"	5' 4"	1200	2160	1700
88	8' 0"	8' 0"	10' 6"	10' 6"	3' 0"	5' 4"	1200	2160	1700
512	5' 0"	12' 0"	7' 6"	14' 6"	2' 0"	8' 6"	1280	2300	1800
612	6' 0"	12' 0"	8' 6"	14' 6"	3' 0"	6' 0"	1350	2430	1900
810	8' 0"	10' 0"	10' 6"	12' 6"	3' 0"	6' 0"	1350	2430	1900
812	8' 0"	12' 0"	10' 6"	14' 6"	3' 0"	6' 8"	1500	2700	2100
1010	10' 0"	10' 0"	12' 6"	12' 6"	3' 0"	6' 8"	1500	2700	2100
814	8' 0"	14' 0"	10' 6"	16' 6"	3' 0"	7' 4"	1660	2980	2300
1212	12' 0"	12' 0"	14' 6"	14' 6"	4' 0"	6' 0"	1800	3240	2500
1214	12' 0"	14' 0"	14' 6"	16' 6"	4' 0"	6' 6"	1950	3500	2700

CRITICAL ROOM PRODUCTS

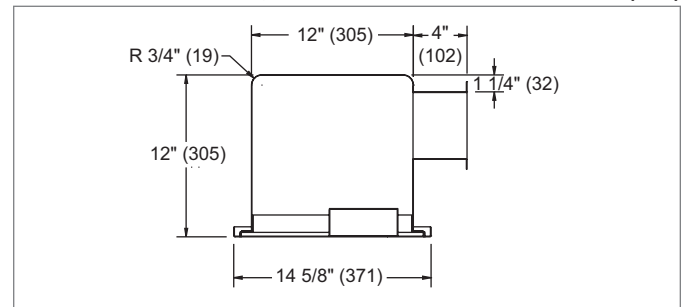
STERILFLO SYSTEM®, TOP VIEW



STERILFLO SYSTEM®, CROSS SECTION CENTER (X-X)



STERILFLO SYSTEM®, CROSS SECTION PERIMETER (Y-Y)

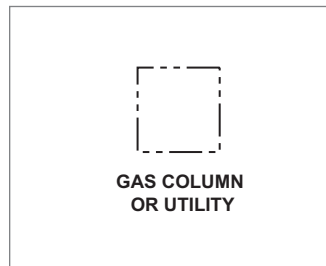
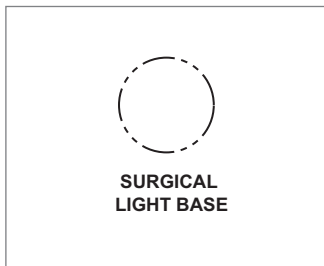
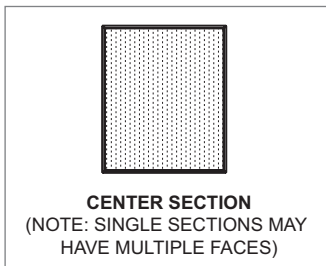
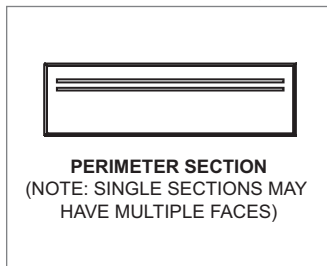


NOTE: Dimensions in parentheses are mm.

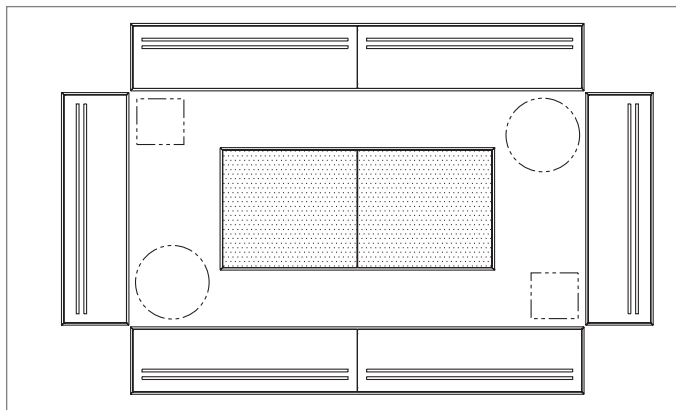
STERILFLO

Sterilflo System® Design Criteria

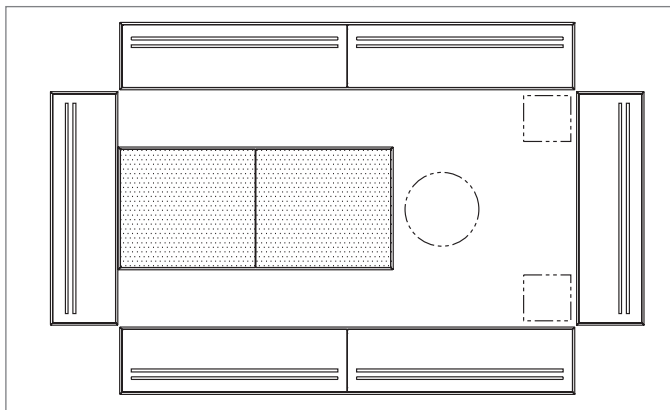
STERILFLO SYSTEM®, LAYOUT SYMBOLS



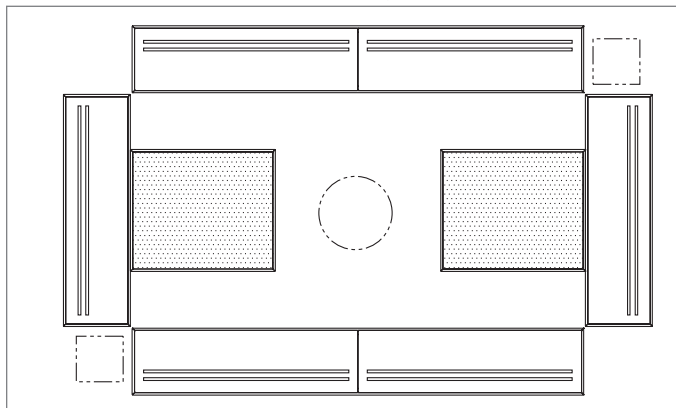
STERILFLO SYSTEM® STANDARD, SINGLE CENTER SECTION



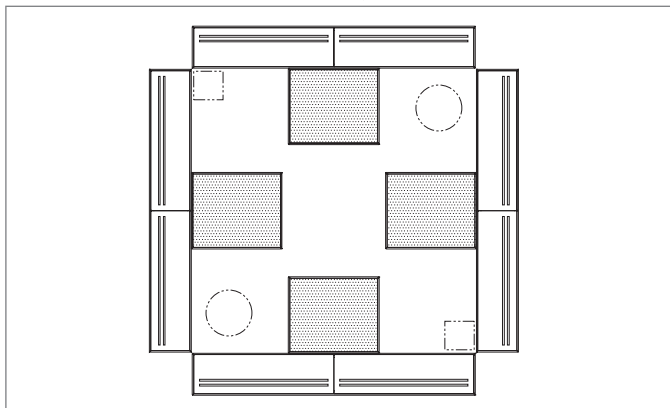
STERILFLO SYSTEM® STANDARD, OFFSET CENTER SECTION



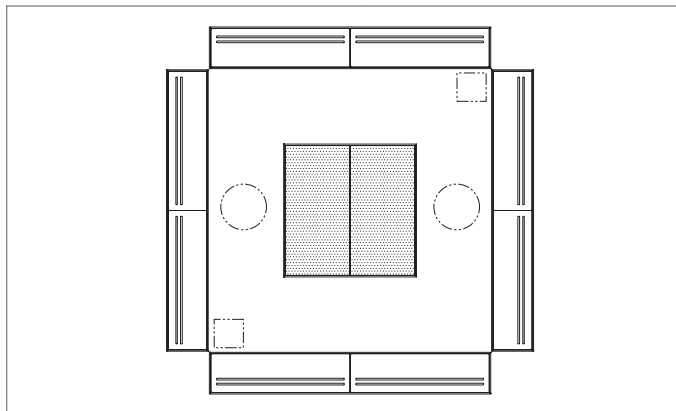
STERILFLO SYSTEM® STANDARD, SPLIT CENTER SECTION



STERILFLO SYSTEM® SQUARE, FOUR CENTER SECTIONS



STERILFLO SYSTEM® SQUARE, SINGLE CENTER SECTION



CRITICAL ROOM PRODUCTS

STERILFLO

Sterilflo System® Components

CENTER AND PERIMETER PLENUM - 22 Gage (minimum) corrosion resistant steel, type 304, 2B finish.

PLENUM FRAME - 18 Gage corrosion resistant steel, type 304, no. 4 scratch finish on exposed surfaces.

AIR DISTRIBUTION PANELS - 20 Gage (minimum) for perimeter and 22 gage (minimum) perforated for center panels corrosion resistant steel, type 304, no. 4 scratch finish on exposed surfaces. Krueger may supply multiple panels per plenum to facilitate installation, removal, or cleaning. Panels are attached to frame with 1/4 turn fasteners to facilitate removal and reinstallation. Perimeter panels are designed to prevent incorrect orientation of slots when panel is installed.

SAFETY CABLES - Each air distribution panel has a pair of safety cables to allow safe disassembly. Anchor point is inside plenum.

ELBOWS - 20 gage (minimum) corrosion resistant steel, type 304, 2B finish.

CONSTANT VOLUME MIXING UNIT - Not part of the Sterilflo System®. Recommended due to high static pressure from HEPA. Krueger can optionally supply mixing boxes and controls for your project.

HEPA FILTER - Not part of the Sterilflo System®. Krueger recommends the HEPA be in an accessible location for ease of maintenance. It is convenient for the maintenance staff if an anometer is used across the HEPA to help determine when it should be replaced. HEPA filters should be placed as close to the system as is practical.

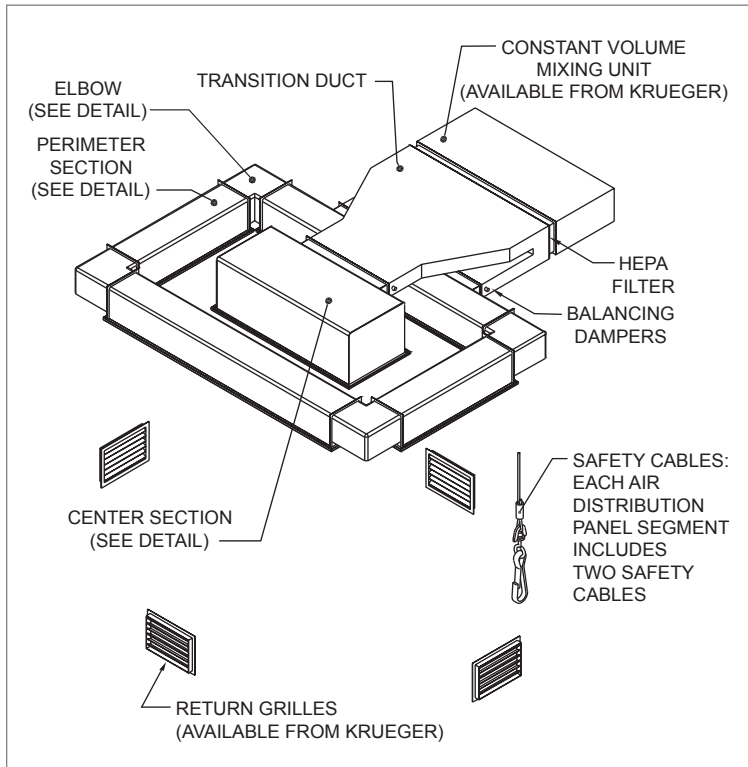
BALANCING DAMPERS - Not part of the Sterilflo System®. Each inlet on the system requires a balancing damper at or upstream of the inlet. Dampers should allow being locked in place and should be accessible through a gypsum board ceiling.

TRANSITION DUCT - Not part of the Sterilflo System®. All duct work after the HEPA filters should be corrosion resistant steel. Ideally, the duct work should have clean-outs spaced no more than 10' on center.

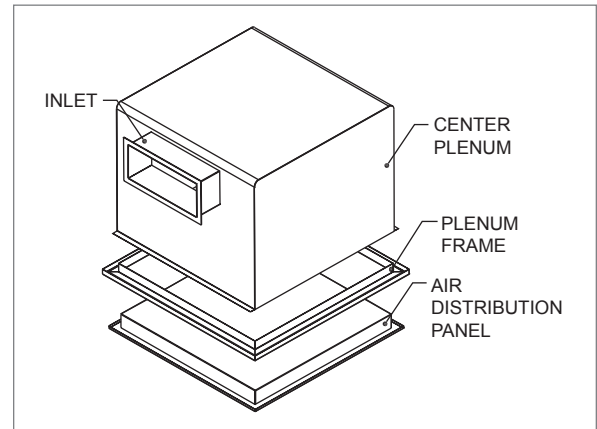
RETURN GRILLES - Not part of the Sterilflo System®. Return grilles are subject to chemical sterilization and should be corrosion resistant steel. Krueger can supply return grilles for your project.

CRITICAL ROOM PRODUCTS

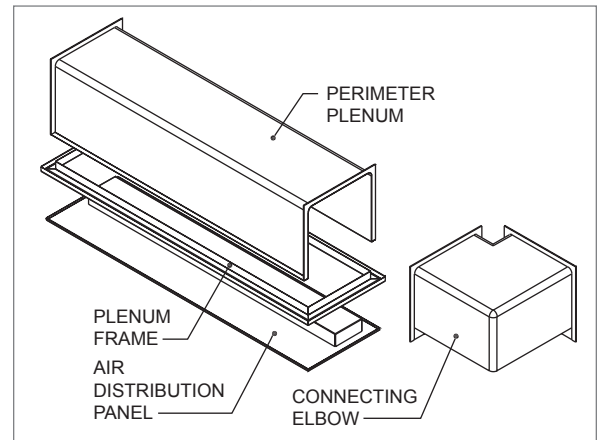
STERILFLO SYSTEM® COMPONENT DETAIL



STERILFLO SYSTEM®, CENTER SECTION DETAIL



STERILFLO SYSTEM®, PERIMETER & ELBOW DETAIL



STERILFLO

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Sterilflo System® Performance Data

STERILFLO SYSTEM®, STATIC PRESSURE REQUIREMENTS

Perimeter		Center	
CFM per Linear Foot of Plenum	Static Pressure Inches of Water Gage	CFM per Square Foot of Panel	Static Pressure Inches of Water Gage
20	0.016	20	0.042
25	0.024	25	0.065
30	0.034	30	0.093
35	0.046	35	0.125
40	0.060	40	0.165
45	0.075	45	0.205
50	0.092	50	0.250

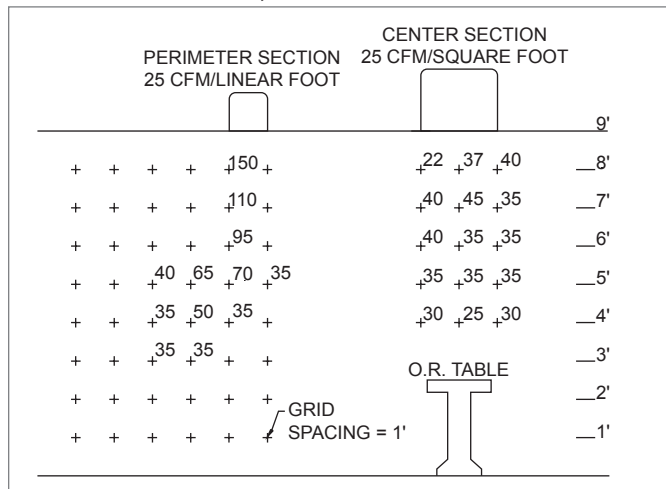
STERILFLO SYSTEM®, NOISE CRITERIA

CFM per Linear Foot of Plenum	NC
20	12
25	18
30	23
35	28
43	32
45	35
50	39

NOTES: Static Pressure Requirements: Add pressure drop for HEPA filter if required. Static pressure based on inlet velocities not exceeding 500 fpm. Noise Criteria: NC values are based on sound power levels minus a room absorption of 10dB, re 10⁻¹² Watts. Table is based on model 48 with 24' linear perimeter. For each additional 4', add 1 NC. Table is based on perimeter panel only. In a properly designed system, the center panels will not add to total room NC.

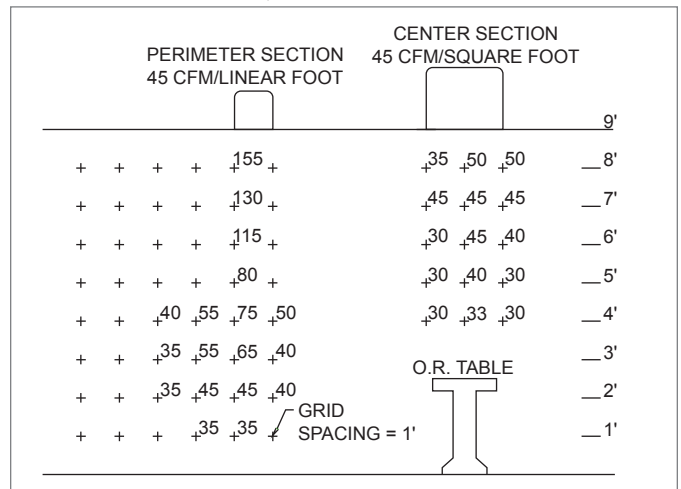
Sterilflo System® Typical Application

STERILFLO SYSTEM®, MINIMUM SUGGESTED AIRFLOW



NOTE: Velocity profiles in 1'x1' grid.

STERILFLO SYSTEM®, MAXIMUM SUGGESTED AIRFLOW



Sterilflo System® Conclusion

Modern operating rooms require an air distribution system that will reduce the possibility of nosocomial infections being acquired by the patient during surgery. They must additionally permit the placement of tools useful to the surgeon as he or she undertakes a procedure demanding skill and concentration.

Krueger has made such a system a reality with the self-contained Sterilflo System®. This unique dual-component system utilizes a protective sheath of air forming a cube that surrounds the patient and the surgical staff. Within the cube, defined by this protective sheath, special pressure plenums provide a constant supply of clean gently cascading air. The "piston effect" of this low velocity air mass maintains positive pressure inside the protective sheath. Contaminated air forced out of the cube impinges upon, but cannot penetrate the curtain, or protective sheath. It is contained away from the operative area until it is flushed from the room through the return grilles. Meanwhile, the patient and surgical staff are continuously bathed in clean air from the center panels.

The Sterilflo System® curtain creates, in effect, a separate area within the operating room. Since all supply air is introduced into this area, the air change rate inside the curtain is many times higher than the calculated room air change rate. This provides for much higher dilutions of airborne particulate matter.

In essence, forced clean air, which is comfort conditioned depending on the surgical requirements, creates a cube from ceiling to floor surrounding the patient and surgical team.

Learn more about how this system can protect surgical patients from post-operative infection. You are invited to attend a seminar and system demonstration at our research facility in Richardson, TX or you may arrange to have a qualified representative make a presentation at your facility. For complete details, or to request additional information, contact Krueger or your local Krueger representative.

Sterilflo System® Suggested Specification & Configuration

Sterilflo System®

The air distribution and particulate control system(s) for the operating room(s) shall be the Sterilflo System® by Krueger and consist of two interacting air distribution components. The first shall be a non-aspirating, perforated panel providing laminar flow over the operating area and be capable of supplying air velocities not to exceed 40 fpm at operating table height. The second component shall provide a perimeter air curtain from non-adjustable multiple slot panels surrounding the center panels and the operating area. These shall be capable of supplying air velocities not to exceed 50 fpm at operating table height. This curtain will not be vertical, but rather project outward from the operating area at an angle of between 5° and 15°, with the greater angle occurring at isothermal conditions and the smaller angle at up to 20°F cooling. Both the center and perimeter panels shall include an internal method of equalizing air flow through the face.

The air distribution components and the equalizing method shall form a face panel that is removable from the plenum. The face panels shall be retained with 1/4 turn fasteners to facilitate rapid removal for cleaning between procedures and designed so when replacing the face, it cannot be installed backwards. Likewise, each face panel shall be attached to the plenum with a pair of safety cables to allow their safe disassembly. The face panels may be provided in multiple sections to facilitate their removal and cleaning. The plenums shall be supplied by the manufacturer and shall be constructed so that they can easily be hand wiped with germicidal solutions for sterilization purposes. Upper longitudinal corners of the perimeter plenums shall have a minimum 3/4" radius to facilitate this wiping. Perimeter plenums; likewise, shall be sized to permit such manual sterilization. All components of the system likely to see regular sterilization shall be constructed of corrosion resistant stainless steel of a grade known to resist the effects of common hospital germicides.

The installed system shall be based on designs proven to have been tested in accordance with The Recommended Procedure for the Determination of Microbiologic Air Cleanliness, as published by the American College of Surgeons, Committee on Operating Room Environment. The system(s) shall have met the requirements for Class 1 Microbiologic Clean Air as set forth in that procedure. The data supporting these results must be available to the engineer for prior approval.

The manufacturer shall have 1000 or more systems installed that utilize the components of the design.

The manufacturer shall be able to provide, if requested, the services of a qualified factory technician or engineer to certify the correct installation and functionality of the installed system.

- 1. SERIES: (XXXXXXXXXX)**
Sterilflo System® - Operating Room Particulate Control Stainless Steel Construction
Startup - Factory Approval of Sterilflo System® Startup
- 2. WIDTH: (XXX)**
48" - 288" in whole inch increments
- 3. LENGTH: (XXX)**
96" - 288" in whole inch increments
- 4. FINISH: (XX)**
4A - British White (antimicrobial)
90 - Polished Mill Finish*

The Sterilflo System® is custom ordered to exact specifications for each application, thus not all available options have been shown.

** All exposed surfaces have a no. 4 scratch finish.*

CRITICAL ROOM PRODUCTS

STERILFLO

SAMPLE CONFIGURATION: STERILFLO - 4 - 8 - 01