METALAIRE™

Periflow System – Specifications

Hospital Operating Room Air Distribution System - Air Curtain System

1. Air distribution and particle control for the operating room(s) shall consist of a non-aspirating center panel(s) providing air supply over the operating table. The air velocity from the center panel(s) 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 height. This air curtain shall not exceed 60 fpm or be of a laminar pattern but shall project air outward at not less than a 5-degree angle, but no more than a 15-degree angle, outward from the operating table with a temperature differential between supply and ambient room temperature of 0 to 20 degrees Fahrenheit (cooling). Systems that do not contain an air current as an inherent part of their design shall not be acceptable.

2. All components of the system shall be fabricated of stainless steel. All ductwork supplied by the contractor from the HEPA filters to the system shall be provided to permit manual sterilization of the ductwork. Factory supplied plenums shall be constructed of a minimum of 20-gauge Type 304 (18-8) stainless steel with a 3/4 inch radius for ease of sterilization. The center panel(s) shall be constructed of 20- gauge Type 304 stainless steel. The perimeter panel(s) shall be constructed of a minimum 18-gauge Type 304 stainless steel. All exposed surfaces shall be supplied with #4 (scratch) finish. All interior surfaces shall be supplied with #2B (smooth) finish to prevent the accumulation of particulate matter. Systems using materials other than stainless steel or supplying component with a painted or coated finish shall not be acceptable.

3. The contractor shall supply manual balancing dampers at each inlet connection to the system also constructed of a minimum of 20-gauge stainless steel.

Each center panel shall be provided with a single inlet connection and the perimeter plenum system shall be supplied with two inlet connections. Systems utilizing more than two inlet connections to the perimeter plenum shall not be acceptable.

4. A stainless steel perforated pressure plate 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 and perimeter panels shall be retained by quarter turn fasteners for ease of removal for sterilization. The manufacturer shall supply clip-on safety cables to retain the face panels after the quarter turn fasteners are released.

5. An installation 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 Environment 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.

6. ***Optional:*** The manufacturer shall provide the services of a qualified factory engineer or technician to supervise the balancing of the system(s). The manufacturer shall provide a complete balancing report to the engineer within two weeks of completion of the system(s) balancing.

7. The air distribution and airborne article control system for the operating room(s) shall be the Periflow Operating Room System as manufactured by
METALAIRE or approved equal.

Performance Specification

The manufacturer shall provide published performance data. Data shall be tested in accordance to ANSI/ASHRAE Standard 70-2006