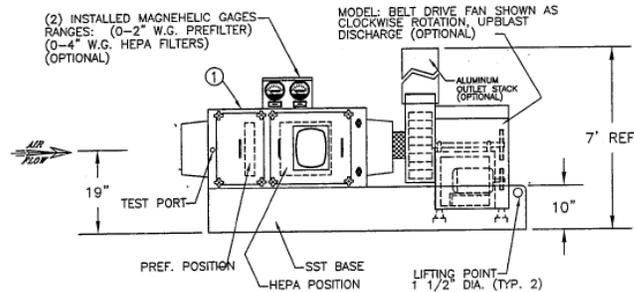




Flanders Self-Contained Isolation Systems

Issue 2, April 2008

The primary function of an Airborne Infection Isolation Room (All Room) is to protect health-care workers (HCWs) and the public by decreasing the likelihood that infectious diseases such as tuberculosis (TB), severe acute respiratory syndrome (SARS) and avian influenza (bird flu) will be transmitted within health-care settings.



While much effort and design is focused on protecting HCWs who are moving in and out of the isolation room from such hazards, we must not forget about maintenance and engineering personnel. These individuals are responsible for maintaining proper ventilation within the entire healthcare facility, which includes All rooms. In doing so, they are in contact with the contaminated exhaust air from All rooms.

The Center for Disease Control (CDC) has addressed this concern in: [Morbidity and Mortality Weekly Report (MMWR) Dec. 30, 2005] "Guidelines for Preventing the Transmission of Mycobacterium tuberculosis in Health-Care Settings". Although the primary focus of this guideline is based on preventing the transmission of *M. tuberculosis*, the guideline offers suggestions that can help to prevent the transmission of many other infectious diseases within health-care settings.

Some of these suggestions include:

- All room exhaust air should not be reintroduced back into the facility.
- All room air should not be exhausted near fresh air intakes.
- Use High Efficiency Particulate Air (HEPA) filters with a minimum efficiency of 99.97% on 0.3-micron particles to filter the All room air before it is exhausted to the outside.
- HEPA filters should be installed in housings that are manufactured specifically to eliminate leakage between filter segments and between the filter and housing.
- A quantitative filter performance test should be performed at the initial filter installation and each time after the filter is changed.
- Maintenance personnel should be protected from possible transfer of *M. tuberculosis* from HEPA media (e.g. bag-in / bag-out filter replacement).
- Pre-filters should be used to extend the life of the HEPA filter.

Flanders/CSC has met or exceeded all of these requirements with our Self-Contained System. This product is ideally suited for removal of infectious airborne particles including multi-drug resistant (MDR) organisms and other viral and bacterial pathogens (e.g. TB, SARS).



Flanders Containment Housing

At Flanders/CSC, we take great pride that all of our containment filtration systems are manufactured under the strict quality assurance requirements of ASME NQA-1: "Quality Assurance Program Requirements for Nuclear Facilities". These requirements insure that each piece of equipment that we manufacture is specifically designed, tested and built for the most important job of all, protecting lives.

[More Details](#)