



Design Filtration Microzone (DFMZ) provides 50 years of experience and knowledge in the particulate and contamination control industry. We are a custom manufacturer that specializes in the design and manufacturing of contamination control equipment to fit any environment.

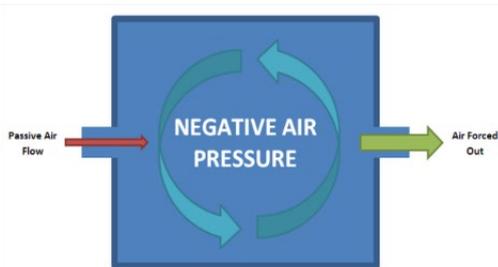
In response to the SARS outbreak in 2003, DFMZ designed and manufactured a standard sized airborne infection isolation room to help hospitals reduce the spread of the virus. In an effort to help combat COVID-19, DFMZ is currently prioritizing manufacturing of these isolation rooms.

What is an Airborne Infection Isolation Room (AIIR)?



According to the CDC, a patient who has contracted the coronavirus can spread it person-to-person. This means between people who are in close contact with one another (within approx. 6 feet), or through respiratory droplets produced when an infected person coughs or sneezes. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs¹. Placing a patient in an airborne infection isolation room can help to contain the spread of aerosolized viruses⁴.

How does an AIIR work?



Isolation rooms are negatively pressurized with respect to adjacent areas to prevent airborne contaminants in droplets from entering other areas and contaminating patients, staff and sterile equipment². The air leaving the AIIR unit travels through three double HEPA filters to contain particulate and recirculate clean air per CDC guidelines for Infection Control in Health Care facilities⁵.

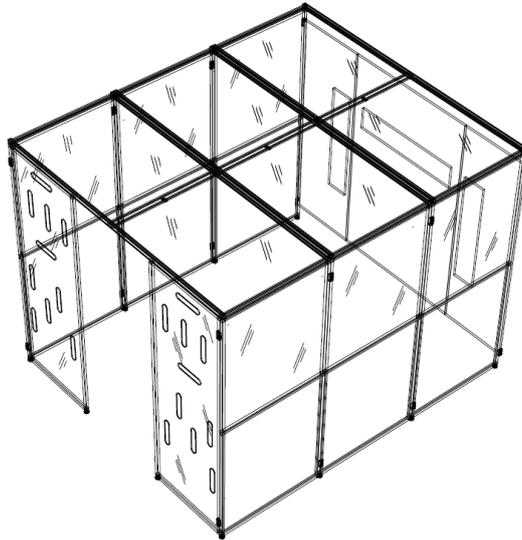
Why are AIIRs important?



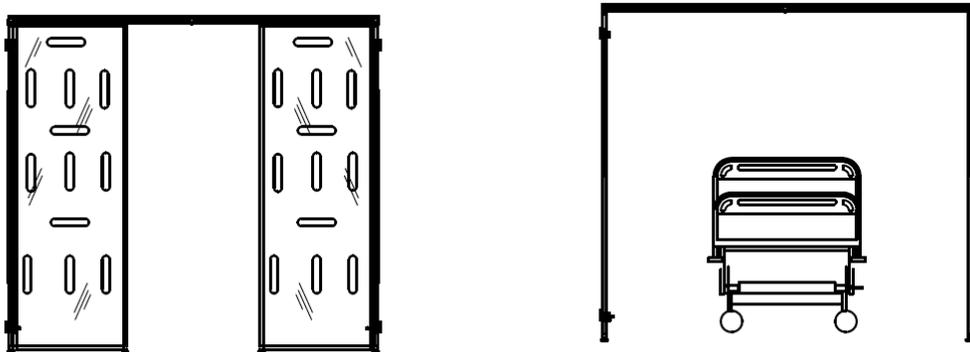
When a COVID-19 patient's symptoms are severe, they may require a ventilator. The insertion of a ventilator is considered an aerosol generating medical procedure (AGMP)⁴. For this reason, hospital protocol often requires that the insertion of a ventilator occur in a negative pressure room². Hospitals have a limited number of negative pressure rooms which quickly become overwhelmed during a pandemic like COVID-19³.

Airborne Infection Isolation Room Design

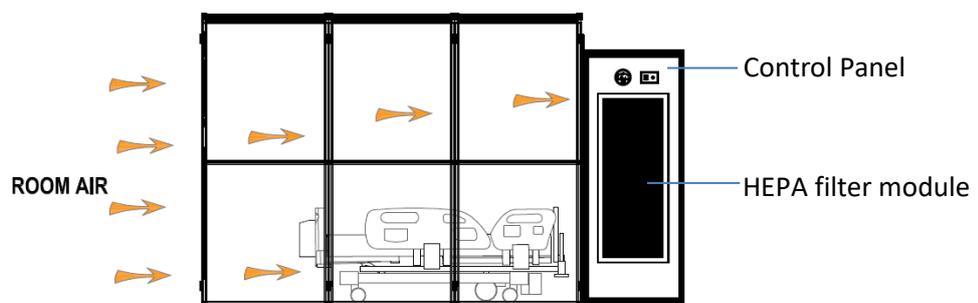
3D TOP VIEW



FRONT VIEW



SIDE VIEW



Technical Specifications

| | |
|----------------------|--|
| Airflow | Minimum 12 air changes per hour, maximum 75 air changes per hour (in accordance with CDC and ASHRAE standards) |
| Filtration | Equipped with three double HEPA inline exhaust filtration for containment and filtration of airborne particulate |
| Electrical | Standard 15 A outlet, 115V circuit, unit uses 12 AMPS |
| Dimensions | 95.5 inches (width), 87.75 inches (height), 112 inches (depth) |
| Control Panel | Displays pressure monitoring, fan speed control, on/off switch |
| Access | Hinged front access doors for ease of patient transfer in and out |
| Assembly | No installation required, can be assembled by end user |
| Calibration | Factory set, no calibration required |
| Certification | Please follow facility recommendations for third party certification |

Order information

Please contact sales@dfmzgroup.com for lead times and pricing.

References

1. Center for Disease Control and Prevention. How Coronavirus Spreads. Atlanta, Georgia: CDC 2020.
<https://www.cdc.gov/coronavirus/2019-ncov/prepare/transmission.html>
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3. Dr. Michael Gardam (infection-control expert). Ontario's coronavirus policy for health workers not supported by evidence, experts warns. Toronto, ON: Globe & Mail, 2020.
<https://www.theglobeandmail.com/canada/article-ontarios-coronavirus-policy-for-health-workers-not-supported-by/>
4. Public Health Ontario. Updated IPAC Recommendations for Use of Personal Protective Equipment for Care of Individuals with Suspect or Confirmed COVID-19. Ottawa, ON: PHAC 2020.
<https://www.publichealthontario.ca/-/media/documents/ncov/updated-ipac-measures-covid-19.pdf?la=en>
5. CDC. Guidelines for Environmental Infection Control in Health-Care Facilities. Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee (HICPAC). MMWR 2003;52(RR10);1-42.