



IsolationAir[®] is a portable contamination control system ideal for hospitals, extended care facilities, and emergency preparedness centers. This system maintains a sterile environment in an isolated room, which prevents cross-contamination throughout the rest of the facility— creating a better environment for patients and staff.

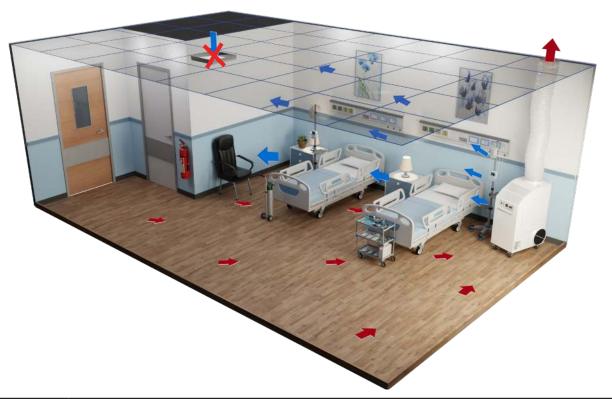
In addition to providing strict temperature and humidity control, IsolationAir is equipped with on-board HEPA filtration, UV sterilization, and ductwork connections. This system is capable of quickly converting a standard-sized patient room into a negative or positive pressure environment.

IsolationAir combines known technologies into an easy-to-deploy portable unit

- HEPA filtration for airborne particulate removal
- UV light to aide in sterilizing airborne viruses and bacteria trapped on the HEPA
- Pressure control either negative or positive
 - Infectious disease control (TB, SARS, smallpox, etc.) requires negative
 - Protective environment control (burn, immuno-suppressed) is positive
- Temperature control the room becomes isolated from the central system
 - Only air having passed through both UV and HEPA will be returned to hospital HVAC



Installation Method - Negative Pressure



Step 1	Connect flex duct mounted on the top of the IsolationAir unit to the ceiling return air grill with universal grill adapter	
Step 2	Close off supply air grill with universal grill adapter and snap cover	
Step 3	Check for other air exhausts or leakages in room, seal closed (ie. bathroom exhaust, open windows, etc)	
Step 4	Plug into emergency outlet and turn on	
Step 5	Verify pressurization is negative with a tissue	

Ships With



Flex Duct (2)

Cap (1)

IsolationAir unit (1)



Installation Method - Positive Pressure



Step 1	Connect flex duct mounted on the top of the IsolationAir unit to the ceiling return air grill with universal grill adapter	
Step 2	Connect one end of a separate flex duct to supply air grill with universal grill adapter and connect the other end to the bottom inlet on the IsolationAir unit	
Step 3	Check for other air exhausts or leakages in room, seal closed (ie. bathroom exhaust, open windows, etc)	
Step 4	Plug into emergency outlet and turn on	
Step 5	Verify pressurization is positive with a tissue	

IsolationAir[®] Portable Contamination Control System



Standards and Guidelines

Office of the Assistant Secretary for Preparedness and Response

Helps hospitals meet or address Capability 4 Medical Surge Objective 2:

Activity #9 Enhance Infectious Disease Preparedness & Surge Response

Activity #6 Provide Burn Care during a Medical Surge Response

Activity #1 Develop Emergency Department and Inpatient Medical Surge Capacity and Capability [Ensure Immediate Bed Availability by rapidly... using non-traditional spaces; Critical Care: rapidly expand capacity by adapting... areas for critical care]

Originally Designed to Meet U.S. Department of Health and Human Services Critical Benchmarks Critical Benchmark #2-2: Surge Capacity: Isolation Capacity Critical Benchmark #2-9: Surge Capacity: Trauma and Burn Care Cross-cutting Critical Benchmark #6: Preparedness for Pandemic Influenza

IsolationAir Meets the Guidelines for the Following Organizations:

1. CDC guidelines for infectious disease control in health care facilities

- 1. Minimum of 12 air changes per hour via HEPA filters
- 2. Use portable units as needed to augment ACH recirculating room air
- 3. Maintains minimum pressure differential of 0.01" (+ or depending on the application)
- 4. Maintains dehumidification controls
- 5. Maintains backup ventilation can be portable units for emergency provision
- 6. Ultraviolet light can be used for supplemental control
- 2. AIA guidelines for design and construction of hospitals, incl. heating and cooling control to 75 °F
- 3. ASHRAE Chapter 7 in Applications Handbook regarding health care facilities

IsolationAir[®]

Portable Contamination Control System



Specifications

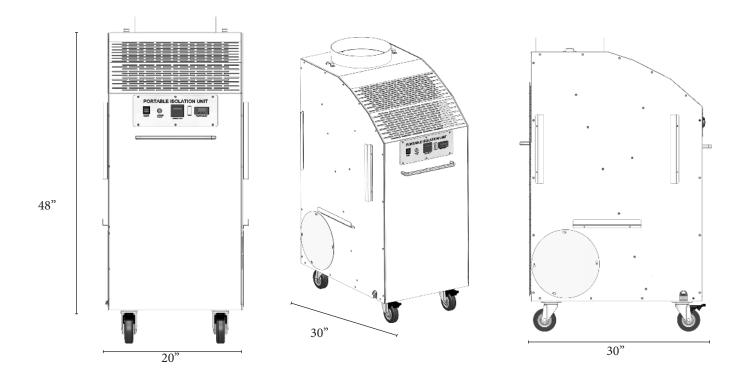
Technical Data & Standard Features						
	Cooling Capacity	Nominal 1/4-ton (3,000 BTU/H) R-134a refrigerant				
	Heating Capacity	Optional 1 kW electric heating element				
Capabilities	Final Filtration	HEPA 99.97% efficient in trapping 0.3 microns particles; MERV 17 rating; All-recirculated and exhausted air is HEPA treated. Wood (for incineration) or aluminum frame options				
	Pre-Filter	Washable media @ 10 pores per inch				
	Room Airflow	12 air exchanges per hour minimum via HEPA filters; ACH based on maximum room size 375 SF with 8-foot high ceiling				
	Condenser Airflow	Exhausted to return air grille or directly outside				
	UV-C Lights	Dual, 36-watt bulbs upstream of HEPA				
	Sound Level	59db(A) 6' from the unit at bed height				
	Ambient Range	Unit is not designed to operate in ambient conditions over 90°F				
	Temperature Control	Set point range 65-80°F; user adjustable; electronic controller				
Controls	Hour Meter	Total run time				
Controls	Service Light	Flashing indicator light at service intervals				
	On/Off Switch	Rocker				
Utilities	Electric	110 Volts / 1 Phase / 60 Hz; 15 amps				
Othitles	Condensate	32-ounce internal bottle (no drain connections are required)				
	Dimensions	30" deep x 20" wide x 48" tall				
	Weight	125 pounds				
Physical	Cabinet	Powder coated aluminum, white				
- Tryorcar	Power Cord	Factory-installed LCDI cord (leakage current detection inter-rupter), rated for 15 amp protection				
	Casters	4" wheels, front locking				
		Single room – 125 sqft	Double room – 288 sqft			
	Air Changes per Hour	36	16			
Sample Field Performance	Negative Pressure Control	-0.034" to -0.052" note 1	-0.01" to -0.017" note 1			
Data	Positive Pressure Control	+0.015" to +0.022" note 1	+0.003" to +0.011" note 1			
	Particle Reduction $(0.5\mu/ft3)^{note 3}$	6,480 to 225 in 2 hours	34,254 to 1,630 in 3 hours			
	Temperature Control	70F +/- 1.5F	75F +/- 1.5F ^{note 2}			
Note on sample field performance data	Technical data results based on Alpha Test performed at SUN Air Innovations makes no guarantees that these test results c IsolationAir's performance	NY Upstate Medical University, February 14, 2005 an be duplicated in any similar sized space; many variables such as	room leakage and initial airborne contamination levels can affect			

Note 1: - Pressure measured as a differential between patient room and adjoining hallway - Highest values are based on results with additional temporary door seals, lowest figures are without any additional seals Note 2: - AIA recommends temperature control capability of at least 75F; testing was conducted to that point, could have also held 70F Note 3: - Room particle counts based on measuring total particle concentration of 0.5 micron particles per cubic foot of room air, tests done with a laser particle counter positioned over patient bed, room was unoccupied

during test



Dimensions



IsolationAir[®] US Patent No. 7,251,953.

Rev 12/2020