

# Criti-Clean™ Ultra Fan Filter Units

**Air supply and reverse-flow models provide HEPA filtration in any type of building.**



**AiMFG.**



*Now available with built-in UV-C lights or bipolar ionization!*



**Criti-Clean Ultra uses proven HEPA filtration technology to create safer indoor environments in virtually any location.**



For many years, AJ Manufacturing's Criti-Clean Ultra fan-powered laminar flow HEPA filter diffusers have provided highly purified air for hospitals, laboratories and other critical environments around the world. But today, after the onset of COVID-19, there is a growing need for HEPA-filtered air in a wide range of building types where it was rarely, if ever, considered before.

Fortunately, there's a cost-effective way to produce cleaner and safer air in any building: our Criti-Clean Ultra family of products. Each Criti-Clean Ultra unit uses proven HEPA filtration technology to remove airborne contaminants, including viruses and other pathogens.

### **Two Criti-Clean Ultra FFU options – in two different models – for ultimate flexibility.**

Our Criti-Clean Ultra FFUs offer two powerful options for providing clean, HEPA-filtered air:

- Air supply units to provide a continual supply of filtered air to a room
- Reverse-flow units to remove potentially contaminated air from a room, creating a negative pressure environment (often used for isolation areas)

Both the air supply and reverse-flow FFUs are available in two different models for added flexibility: a traditional ceiling-mounted unit or a portable unit that can quickly convert existing spaces into clean air environments.

All models also offer optional upgrades with built-in Ultraviolet-C Radiation and Needlepoint Bipolar Ionization modules for additional effectiveness in neutralizing airborne contaminants.

*Both Criti-Clean Ultra models are the most powerful FFUs available, offering a wide range of industry-leading advantages:*

### **STANDARD FEATURES**

- The industry's highest output, up to 1200 CFM
- Energy efficiency (only 42 watts at 90 FPM velocity/450 CFM)
- Quiet performance (only 45 DBA at 90 FPM, 58 DBA at 1100 CFM)
- Computer controlled, variable speed EC motors
- All type 304 stainless steel construction
- Pre-filter
- HEPA filter (99.99% @ 0.3 micron)
- Easy access to pre-filter and HEPA filter

### **OPTIONAL FEATURES**

- ULPA filter (99.9995% @0.12 micron)
- Ultraviolet-C (UV-C) Radiation module sterilizes particulates in the air stream and sanitizes the HEPA filter
- Needlepoint Bipolar Ionization module produces charged ions that neutralize and capture airborne pathogens
- Air inlet sensor that measures CFM in real time
- Continuous filter monitoring
- Filter overload indicator light
- Challenge/pressure ports
- Networking control for multiple units
- Built-in LED lights
- Antimicrobial painted finish





## Ceiling-Mounted Criti-Clean Ultra

*A permanent and reliable  
solution for continuous  
HEPA-filtered air.*

## Proven technology in a compact, energy efficient, ceiling-mounted unit.

For permanent installations, the Crite-Clean Ultra is available in a ceiling-mounted unit that is easy to retrofit into existing spaces due to its low plenum height – just 13.7" on the air supply unit and 15.8" on the reverse-flow unit. Both connect to building ductwork and are easy to install in a ceiling grid system or into a plaster/hard ceiling using our innovative surface mount clamps.

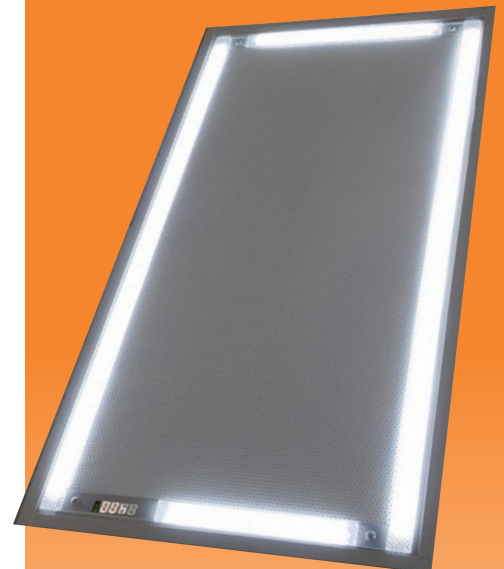
The air supply Crite-Clean Ultra continually produces a non-aspirating, low velocity, uniformly distributed, downward moving "piston" of HEPA-filtered air (as is used in hospital operating rooms). The reverse-flow unit creates a negative pressure environment that draws air up and out of an isolation room, removes airborne contaminants via the unit's built-in HEPA filter, and then discharges clean air.

Both units are also available with optional built-in LED lights to eliminate the need for additional light fixtures, and to help maximize the use of ceiling space.



### FEATURES

- Up to 1200 CFM
- 48"x24" and 24"x24" sizes
- Stainless steel construction
- Welded plenum construction
- Low plenum height
- Room-side access to HEPA filter and pre-filter
- Room-side CFM display and adjustment
- 120V, 208/204V, or 277V ECM motor (120V only for portable units)
- External 1.5" foil backed insulation (optional)



***Ceiling space can be maximized by adding built-in LED lights to the FFU.***

**Portable Criti-Clean Ultra**  
*Temporary clean air solutions  
when and where you need them.*





## Portable units offer immediate and flexible use – and keep you always at the ready.

For temporary, relocatable use whenever and wherever you need clean air, we offer Criti-Clean Ultra in convenient portable units. They are mounted on wheels, plug into standard electrical wall outlets and can be placed virtually anywhere to provide effective HEPA filtration. Like our ceiling-mounted units, our portable FFUs are also available in both air supply and reverse-flow models.

The air supply unit draws air in through the back and expels HEPA-filtered air out through its face, continually circulating and filtering the air in any room.

The portable reverse-flow unit draws air in through the face, then exhausts HEPA-filtered air out through ductwork that can be connected to room exhaust or vented out through a window. It's a fast and easy way to turn existing spaces into isolation areas.

Both portable Criti-Clean Ultra FFUs feature a push/pull handle and swivel casters for easy movement. They can be stocked and stored for quick deployment when needed, allowing any building to stay prepared for infectious disease outbreaks.



### FEATURES

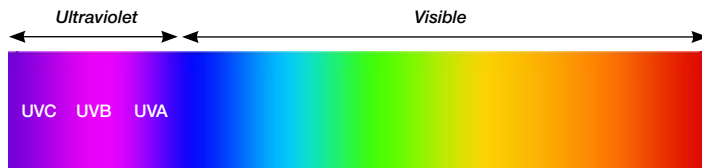
- Up to 1100 CFM
- 4 swivel casters (2 with brakes) for easy movement
- 10-foot hospital grade power cord and plug
- Push/pull handle
- Stainless steel construction
- 120V EC motor
- Size: 48" x 24"



## Give your Criti-Clean Ultra FFU even more air cleaning power with UV-C or Bipolar Ionization.

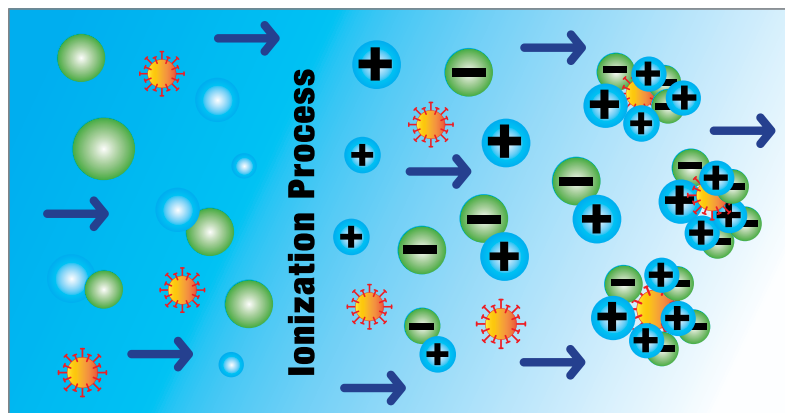
We offer two options to add extra air cleaning power to any Criti-Clean Ultra unit: built-in Ultraviolet-C Radiation and Needlepoint Bipolar Ionization modules. Either option is available as an added feature to our ceiling-mounted and portable air supply and reverse-flow units.

The **Ultraviolet-C (UV-C) Radiation** module assists in sterilizing particulates in the FFU's air stream and also disinfects the HEPA filter to help protect against viruses, bacteria and mold. When microorganisms are exposed to UV-C, the light's radiation penetrates their cell walls, disrupts the structure of their DNA, and effectively neutralizes these organic compounds.



With the shortest wavelength and highest energy, UVC is the most effective light source for disrupting viruses and other pathogens.

The **Needlepoint Bipolar Ionization** module produces a stream of negative and positive ions when electricity is applied to a tube with two electrodes. The ions react with water vapor and oxygen in the air to create free radicals, which attach themselves to particles, pathogens and gas molecules. These free radicals rob any microorganisms of hydrogen, thereby killing them. The resulting larger clusters of particles are also more easily trapped in the HEPA filter.



*The Ultraviolet-C (UV-C) Radiation module disrupts pathogens and disinfects the HEPA filter to help protect against viruses, bacteria and mold.*



*The Needlepoint Bipolar Ionization module produces ions that attach to pathogens, depriving them of needed hydrogen and allowing them to be captured in the unit's HEPA filter.*

# Performance Data

## Air Supply Units

### CEILING: 48"x24" HIGH-FLOW FILTER, AT 0 STATIC, 208-277VAC

SETPOINT	CFM	CFM/ Sq Ft	WATTS	RPM
100%	1320	273	423	2450
90%	1156	239	310	2205
80%	975	202	216	1960
70%	790	163	143	1715
60%	617	128	90	1470
50%	430	89	54	1225
40%	275	57	29	980
30%	162	33	17	735
20%	74	15	10	490

### CEILING: 48"x24" HIGH-FLOW FILTER, AT 0 STATIC, 120VAC

SETPOINT	CFM	CFM/ Sq Ft	WATTS	RPM
100%	1074	222	257	2090
90%	917	189	185	1881
80%	760	157	134	1672
70%	608	126	86	1463
60%	450	93	55	1254
50%	312	64	33	1045
40%	200	41	20	836
30%	114	24	13	627
20%	51	11	9	418

### PORTABLE: 48"x24" HIGH-FLOW FILTER, AT 0 STATIC, 120VAC

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50%	312	64	33	1045
40%	200	41	20	836
30%	114	24	13	627
20%	51	11	9	418

## 48"x24" FILTER OPTIONS

UNIT SIZE	TYPE	FLOW	WIDTH	HEIGHT	DEPTH	RATED CFM
48x24	HEPA	HIGH	43.5	19.5	3.5	1200
48x24	HEPA	STANDARD	43.5	19.5	2.88	900

## Reverse-Flow Units

### CEILING: 48"x24" STANDARD FILTER, AT 0 STATIC, 208-277VAC

SETPOINT	CFM	CFM/ Sq Ft	WATTS	RPM
100%	1125	216	365	2450
90%	1004	193	274	2205
80%	848	163	195	1960
70%	708	136	127	1715
60%	545	105	81	1470
50%	395	76	48	1225
40%	260	50	26	980
30%	141	27	14	735
20%	56	11	8	490

### CEILING: 48"x24" STANDARD FILTER, AT 0 STATIC, 120VAC

SETPOINT	CFM	CFM/ Sq Ft	WATTS	RPM
100%	930	179	237	2090
90%	806	155	174	1881
80%	672	129	120	1672
70%	545	105	81	1463
60%	415	80	50	1254
50%	292	56	32	1045
40%	183	35	17	836
30%	104	20	12	627
20%	34	7	8	418

### PORTABLE: 48"x24" STANDARD FILTER, AT 0 STATIC, 120VAC

SETPOINT	CFM	CFM/ Sq Ft	WATTS	RPM
100%	785	151	218	2090
90%	687	132	164	1881
80%	563	108	110	1672
70%	454	87	76	1463
60%	350	67	46	1254
50%	272	52	30	1045
40%	174	33	17	836
30%	98	19	12	627
20 %	34	7	8	418

Ceiling-mounted units are also available in 36"x24" and 24"x24" sizes. Additional performance data is available on request.



# AJ Manufacturing: The Industry Leader In Critical Environment Air Distribution.

AJ Manufacturing is the industry leader in custom and standard stainless steel air distribution products for critical environments – and for any building where indoor air quality is a priority. We also specialize in custom designing and building our products to meet individual project requirements.

## PRODUCT LINES

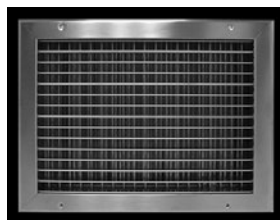
- Critical Environment Diffusers
- Return Grilles
- Supply Grilles
- Hinged Filter Grilles
- Removable Filter Grilles
- Ceiling Diffusers
- Operating Room Ceiling Systems
- Bar Grilles
- Dampers
- Drum Louvers
- Air Extractors
- Accessories
- Architectural Grilles
- Security Products
- Door Grilles
- Aluminum Products



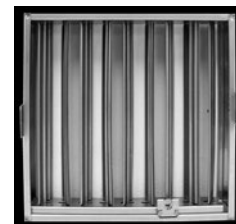
Return Grilles



Hinged Filter Grilles



Supply Grilles



Dampers



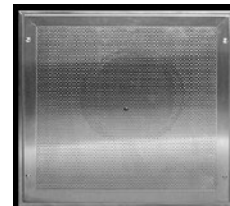
Removable Filter Grilles



Louvers



S6 Ceiling System



Laminar Flow Diffusers



Critical Thinking for Your Critical Environment

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