

Nutripure®

GERMICIDAL ULTRAVIOLET SANITARY CONDITIONERS



Model 2B-SC, 3B-SC



Model 4B-ASC, 5B-ASC



Model 6B-ASC



SINCE 1963

ATLANTIC
ULTRAVIOLET
CORPORATION®

ABOUT US



Since 1963, we've been engineering and manufacturing germicidal ultraviolet equipment to prevent disease caused by contaminants in water, in air, and on surfaces. Our engineers bring each concept to a finished model, implementing stringent quality control procedures. Each product is manufactured with stainless steel and the highest quality materials to ensure the safety of personnel and room occupants. We stock an extensive inventory in our 37,500 square foot facility and ship throughout the world. Our knowledgeable team of UV-C specialists will provide effective and cost-conscious solutions for your home, business, industry, or institution.



Model 2B-SC, 3B-SC



Model 4B-ASC, 5B-ASC

Model 6B-ASC



PRINCIPLE OF OPERATION

ADVANTAGES

Economical

System requires very little power to operate.

Safe

No risk of over-exposure.

Fast

Disinfects air in seconds.

Automatic

Continuous disinfection without special attention.

Durable

Polished stainless steel cabinet.

Versatile

Numerous models available to handle various configurations.

Low Maintenance

Only requires routine cleaning or replacement of filter, along with annual lamp replacement.

The **Nutripure®** has been carefully conceived to provide adequate germicidal ultraviolet exposure for air disinfection. The treated air is used in the head space of liquid storage tanks helping to prevent condensation, which can dilute their contents. When diluted, some liquids have a strong tendency to promote the growth of bacteria and mold on the liquid surface. The UV-C dose provided to air is a function of UV exposure time and the intensity of the lamps. Our UV application specialists would be happy to perform the necessary calculations to ensure the sanitary conditioner we provide is appropriate for your particular application.

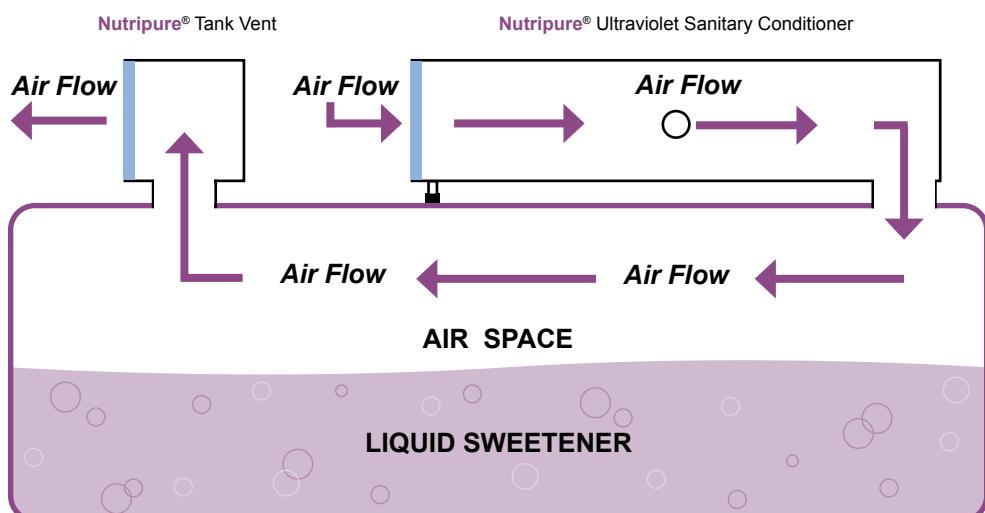


Figure 1 - **Nutripure®** Ultraviolet Sanitary Conditioner mounted on a liquid sugar tank

The operation of the **Nutripure®** is as follows:

1. Air is drawn into the **Nutripure®** Ultraviolet Sanitary Conditioner through the electrostatic filter, which prevents contaminants, insects, or debris from entering the storage tank.
2. The air is forced into the ultraviolet exposure chamber where it is irradiated by germicidal ultraviolet light (lamp quantity varies per model). These special lamps generate high levels of germicidal ultraviolet wavelengths lethal to infectious microorganisms such as bacteria, mold, and viruses. Once exposed, they are neutralized and rendered harmless.
3. Observation port/sight glass provides positive indication of germicidal lamp operation.
4. On models with a HEPA Absolute filter, the irradiated air is then forced through this additional filter which removes more than 99.97% of particles as small as 0.3 microns.
5. Circulation of purified, filtered air within the tank head space reduces condensation which can be detrimental to the liquid integrity.
6. Air is exhausted out of the tank through a filtered tank vent.

SPECIAL FEATURES

Nutripure® 2B-SC and 3B-SC Ultraviolet Sanitary Conditioners



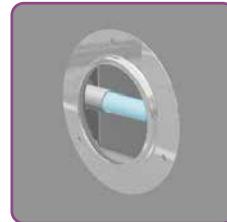
STER-L-RAY® Instant Start Germicidal Lamp(s)

They provide the utmost in quality, sustained output, and longevity. All lamps used in Nutripure models are coated with our **ArmorLite™ Safety Shield**, which protects employees, products, and work environments from dangers associated with broken lamp fragments.



Particulate Filter

Electrostatic to attract and trap particles. Washable, reusable, and eco-friendly.



Observation Port/Sight Glass Assembly

A sight glass assembly allows for a safe visual inspection of the operation of the lamp(s).



Model 2B-SC, 3B-SC

(See page 10 for Optional Accessories)

Steadfast™ Lampholders

Set includes a stationary and a spring-loaded, telescopic holder that grasps a single pin lamp securely. The spring-loaded feature on one end facilitates convenient, quick and easy lamp changes.

Interlock Safety Switch

The interlock safety switch is a standard feature that disconnects power to the sanitary conditioner when the access panel is removed for lamp or filter replacement.

Stainless Steel Enclosure

The sanitary conditioner is manufactured in Type 304 stainless steel for unparalleled strength, durability and an attractive finish. Safely encloses germicidal UV lamps for use in storage tank applications.

Polished Reflector

Interior surface is polished aluminum, providing a highly reflective surface to maximize ultraviolet intensity within the chamber.

SPECIFICATIONS



Figure 2 - Nutripure® 2B-SC Ultraviolet Sanitary Conditioner (shown)

Nutripure® 2B-SC and 3B-SC Ultraviolet Sanitary Conditioners are connected directly to liquid storage tanks. Pipe collar, pedestal leg assemblies and lamp(s) (not shown) are included. The Nutripure® Tank Vent is an optional accessory. (See below for more information.)

SPECIFICATIONS—Nutripure® 2B-SC & 3B-SC Ultraviolet Sanitary Conditioners

Model	Tank Size (Gallons) ①	Dimensions			Free Air Displacement (CFM)	Volts ②	Power Requirements (Amps)
		Length	Width	Height			
2B-SC	up to 6,000	34-1/2"	7-3/4"	7-3/4"	72	120	1.3
3B-SC	7,000-18,000	34-1/2"	7-3/4"	7-3/4"	140	120	2.9

① Model capacity incorporates an estimated allowance for airflow friction loss across filter and sanitary conditioner.

② Information listed refers to 120 Volt 60 Hz models. Contact factory for specifics on other voltages.

Genuine **STER-L-RAY®** Germicidal Lamp Data

Model	Lamp No. (Quantity)	Lamp Length	Power Consumption ①	Ultraviolet Output ②	Rated Average Effective Life ③
2B-SC	05-6011 (1)	21-7/8" (556 mm)	25.6 Watts	8.5 Watts	10,000 hrs
3B-SC	05-6011 (2)	21-7/8" (556 mm)	51.2 Watts	17 Watts	10,000 hrs

① Wattage is lamp watts only and does not include ballast loss.

② Ultraviolet Output at 254 nanometers at 100 hours and 80 degrees F (approximate).

③ Some industries suggest lamp replacement every 6 months to meet specific compliance standards.

SPECIFICATIONS—Nutripure® Tank Vent (optional)

Tank Vent Model	Dimensions		
	Length	Width	Height
2-TV	6-1/32"	7-3/4"	7-3/4"

Contact our UV Specialists to discuss applications.



SPECIAL FEATURES

Nutripure® 4B-ASC, 5B-ASC, 6B-SC, and 6B-ASC Ultraviolet Sanitary Conditioners



STER-L-RAY® Instant Start Germicidal Lamp(s)

They provide the utmost in quality, sustained output, and longevity. All lamps used in Nutripure models are coated with our **ArmorLite™ Safety Shield**, which protects employees, products, and work environments from dangers associated with broken lamp fragments.



Particulate Filter

Electrostatic to attract and trap particles. Washable, reusable, and eco-friendly.



Observation Port/Sight Glass Assembly

A sight glass assembly allows for a safe visual inspection of the operation of the lamp(s).



Model 4B-ASC, 5B-ASC

(Models with ASC include Absolute HEPA Filter)

Model 6B-ASC
(Models with ASC include Absolute HEPA Filter)



HEPA Filter

Models 4B-ASC, 5B-ASC & 6B-ASC include HEPA (Absolute Filter) which removes 99.97% of particles as small as 0.3 microns.

Steadfast™ Lampholders

Set includes a stationary and a spring-loaded, telescopic holder that grasps a single pin lamp securely. The spring-loaded feature on one end facilitates convenient, quick and easy lamp changes.

Interlock Safety Switch

The interlock safety switch is a standard feature that disconnects power to the model when the access panel is unhinged for lamp or filter replacement.

Stainless Steel Enclosure

The Nutripure® is manufactured in Type 304 stainless steel for unparalleled strength, durability and an attractive finish. Safely encloses germicidal UV lamps for use in storage tank applications.

Polished Reflector

Interior surface is polished aluminum providing a highly reflective surface to maximize ultraviolet intensity within the chamber.

SPECIFICATIONS

Nutripure® 4B-ASC, 5B-ASC, 6B-SC and 6B-ASC Ultraviolet Sanitary Conditioners are mounted directly on liquid storage tanks or installed adjacent to tank with interconnecting pipe.

Pipe collar, pedestal leg assemblies, and lamps (not shown) are included. The **Nutripure®** Tank Vent is an optional accessory. (See below for more information.)



Figure 3 - Nutripure® Model 4B-ASC Ultraviolet Sanitary Conditioner (shown)
(Models with **ASC** include Absolute HEPA Filter)

SPECIFICATIONS — Nutripure® 4B-ASC, 5B-ASC, 6B-SC & 6B-ASC

Model	Tank Size (Gallons) ①	Dimensions			Free Air Displacement (CFM)	Volts ②	Power Requirements (Amps)
		Length	Width	Height			
4B-ASC	up to 6,000	48"	10-1/4"	10-1/4"	72	120	2.0
5B-ASC ③	6,000-15,000	48"	10-1/4"	10-1/4"	140	120	2.9
6B-SC	15,000 to 30,000	46-1/16"	14-1/4"	12-1/6"	295 / 435	120	4.93
6B-ASC ③	15,000 to 30,000	61-7/16"	14-1/4"	12-1/6"	545 / 760	120	5.86

① Model capacity incorporates an estimated allowance for airflow friction loss across filter and sanitary conditioner.

② Information listed refers to 120 Volt 60 Hz models. Contact factory for specifics on other voltages.

③ Specifically recommended for liquid sugar storage tanks.

Genuine **STER-L-RAY®** Germicidal Lamp Data

Model	Lamp No. (Quantity)	Lamp Length	Power Consumption ①	Ultraviolet Output ②	Rated Average Effective Life ③
4B-ASC	05-6011 (1)	21-7/8" (556 mm)	25.6 Watts	8.5 Watts	10,000 hrs
5B-ASC	05-6011 (2)	21-7/8" (556 mm)	51.2 Watts	17 Watts	10,000 hrs
6B-SC/6B-ASC	05-6013 (4)	27-7/8" (708 mm)	128 Watts	44.8 Watts	10,000 hrs

① Wattage is lamp watts only and does not include ballast loss.

② Ultraviolet Output at 254 nanometers at 100 hours and 80 degrees F (approximate).

③ Some industries suggest lamp replacement every 6 months to meet specific compliance standards.

SPECIFICATIONS—Nutripure® Tank Vent (optional)

Tank Vent Model	Dimensions		
	Length	Width	Height
4-TV	6"	10-1/8"	10-1/16"
4-ATV	16-1/4"	10-1/4"	10-1/4"
6-TV	14-1/2"	12-1/4"	14-1/4"
6-ATV	22-5/8"	12-1/4"	12-1/4"



Contact our UV Specialists to discuss applications.

SPECIAL FEATURES

Nutripure® 7-ASC, 8-ASC, and 9-ASC Ultraviolet Sanitary Conditioners



STER-L-RAY® Instant Start Germicidal Lamp(s)

They provide the utmost in quality, sustained output, and longevity. All lamps used in Nutripure models are coated with our **ArmorLite™ Safety Shield**, which protects employees, products, and work environments from dangers associated with broken lamp fragments.



Particulate Filter

Electrostatic to attract and trap particles. Washable, reusable, and eco-friendly.



Observation Port/Sight Glass Assembly

A sight glass assembly allows for a safe visual inspection of the operation of the lamp(s).



Model 7-ASC

Steadfast™ Bayonet Socket Mount Lampholder

Bayonet Socket mount four-pin lampholder fastens the lamp securely while providing convenient, "quick and easy" lamp change.

Interlock Safety Switch

The interlock safety switch is a standard feature that disconnects power to the sanitary conditioner when the access panel is unhinged for lamp or filter replacement.

SENTINEL® Outlet Connector

Allows for easy plug-in and operation of optional **SENTINEL®** Remote Lamp Indicator.



HEPA Filter

Models 4B-ASC, 5B-ASC & 6B-ASC include HEPA (Absolute Filter) which removes 99.97% of particles as small as 0.3 microns.

Lamp Replacement Indicator

Resettable Flashing Light signals reminder for lamp change.

Stainless Steel Enclosure

The **Nutripure®** is manufactured in Type 304 stainless steel for unparalleled strength, durability and an attractive finish. Safely encloses germicidal UV lamps for use in storage tank applications.

Polished Reflector

Interior surface is polished aluminum providing a highly reflective surface to maximize ultraviolet intensity within the chamber.

SPECIFICATIONS



Figure 4 - Nutripure® Model 7-ASC Ultraviolet Sanitary Conditioner (shown)

Multiple mounting options available for the Nutripure® Models 7-ASC, 8-ASC and 9-ASC Ultraviolet Sanitary Conditioner.

SPECIFICATIONS—Nutripure® 7-ASC, 8-ASC & 9-ASC Ultraviolet Sanitary Conditioner

Model	Tank Size (Gallons) ①	Dimensions			Free Air Displacement (CFM)	Volts	Power Requirements (Amps)
		Length	Width	Height			
7-ASC	30,000 to 50,000	63-1/8"	17-15/16"	14-3/8"	560	120 50/60Hz	4.66
8-ASC	50,000 to 150,000	74-1/4"	21-1/4"	20-1/4"	1057	120 50/60Hz	10.02
9-ASC	150,000 +	81-15/16"	27-3/8"	27-7/16"	1828	230 50/60Hz	9.75

① Model capacity incorporates an estimated allowance for airflow friction loss across filter and sanitary conditioner.

Genuine **STER-L-RAY®** Germicidal Lamp Data

Model	Lamp No. (Quantity)	Lamp Length	Power Consumption ①	Ultraviolet Output ②	Rated Average Effective Life ③
7-ASC	05-6016 (4)	691 mm	320 Watts	92 Watts	10,000 hrs
8-ASC	05-6017 (6)	843 mm	348 Watts	168 Watts	10,000 hrs
9-ASC	05-6018 (6)	843 mm	688 Watts	324 Watts	10,000 hrs

① Wattage is lamp watts only and does not include ballast loss.

② Ultraviolet Output at 254 nanometers at 100 hours and 80 degrees F (approximate).

③ Some industries suggest lamp replacement every 6 months to meet specific compliance standards.

SPECIFICATIONS—Nutripure® Tank Vent (optional)

Tank Vent Model	Dimensions		
	Length	Width	Height
7-ATV	30-3/16"	15-1/16"	12-9/32"
8-ATV	40-3/16"	22-1/16"	18-9/32"
9-ATV	36.53"	39.95"	21.45"



Contact our UV Specialists to discuss applications.

OPTIONAL ACCESSORIES



SENTINEL® Germicidal UV Lamp Operation Indicator*

The SENTINEL® Remote Lamp Indicator monitors lamp operation of one, two, four or six lamp ultraviolet fixtures and is available with a 25, 50 or 100 foot cable.

(Available for ALL Nutripure® models. Must be ordered at the time of purchase on Model 2B-SC thru Model 6B-ASC. SENTINEL® output connector needs to be installed for easy plug-in and operation. For Models 7/8/9, just purchase the optional SENTINEL®.)



Integral Elapsed Time Indicator*

The Elapsed Time Indicator is a real-time, non-resettable display of accumulated operating time. Useful for scheduling and recording maintenance and lamp replacement.

(Available for ALL Nutripure® models at time of purchase)



Sanitary Adapter (shown with existing collar)

Available in 3" and 4" for models manufactured before January 2018. Contact factory for alternate inlet/outlet connections.



Sanitary Fitting

Available in 3" and 4" for Nutripure® models 2B-SC through 6B-ASC manufactured in or after January 2018. Contact factory for alternate inlet/outlet connections.



Promate™ Face Shield

Lightweight visor with adjustable headgear provides eye and face protection from germicidal ultraviolet rays.



Promate™ Safety Glasses

Safety eyewear should be used as general-purpose safety protection and for additional shielding from germicidal ultraviolet rays.

* Item must be ordered at same time as Nutripure® Sanitary Conditioner (installed at factory).

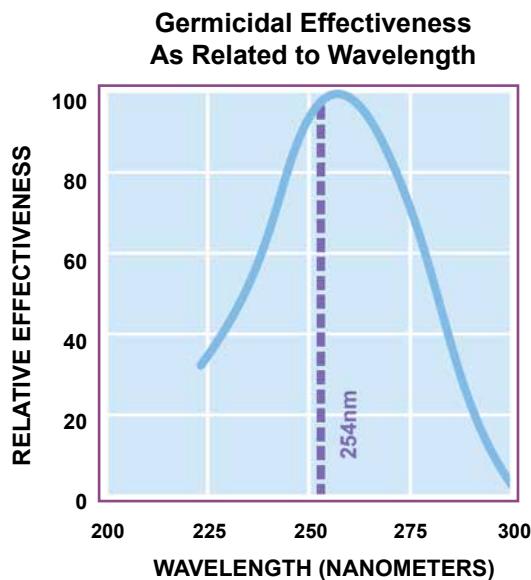
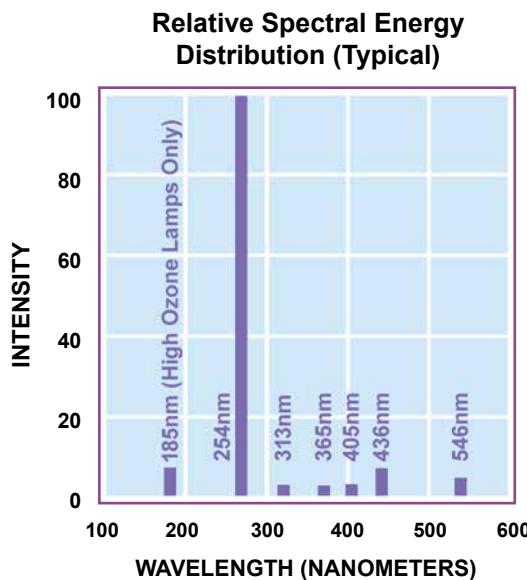
INDUSTRIES

- Liquid Sweeteners
- Corn Syrups
- Sucrose
- Glucose
- Fructose
- Honey
- Molasses
- Maple Syrup
- Liquid Sugar
- Edible Oil

Note: For the following applications, Nutripure® can be used for the ingredients but not finished goods.

- Liquid Starches
- Beverage
- Dairy
- Meat
- Bakery
- Frozen Foods
- Candy/Confectionery
- Chocolate
- Pharmaceutical
- Flavorings
- Ice Cream
- Snack Foods
- Cookies/Crackers
- Cereal Bars
- Jams/Jellies
- Bread/Rolls/Pastries
- Breweries
- Wineries
- Distillers/Liqueurs
- Fruit Juice
- Juice Concentrate
- Bottled Water
- Sports Drinks
- Soda
- Flavored Waters
- Bottled Tea/Coffee
- Canned Foods
- Prepared Foods
- Contract Packaging
- Condiments
- Vinegar
- Pickled Foods

GENUINE STER-L-RAY® GERMICIDAL LAMPS



STER-L-RAY® Germicidal Lamps are shortwave, low pressure tubes that produce ultraviolet wavelengths lethal to microorganisms.

STER-L-RAY® High Output (HO) Germicidal Lamps are similar in size and shape to conventional germicidal lamps but are capable of operating at higher input power and current. Approximately 95% of the ultraviolet energy emitted from **STER-L-RAY®** germicidal lamps is at 254 nanometers, the region of germicidal effectiveness most destructive to bacteria, mold, and viruses.

STER-L-RAY® and the **STER-L-RAY®** logo are trademarks of Atlantic Ultraviolet Corporation®

CAUTION: Exposure to direct or reflected germicidal ultraviolet rays will cause painful eye irritation and reddening of the skin.

Personnel subject to such exposure must wear suitable face shield, gloves and protective clothing.

Hg - LAMP CONTAINS MERCURY, manage in accord with disposal laws, see: LampRecycle.org.

GERMICIDAL ULTRAVIOLET DOSAGE

Germicidal lamps provide effective protection against microorganisms. A small cross-section is shown below.

ORGANISM	ALTERNATE NAME	TYPE	DISEASE	DOSE*
<i>Corynebacterium diphtheriae</i>	<i>C. diphtheriae</i>	Bacterium	Diphtheria	6.50
<i>Legionella pneumophila</i>	<i>L. pneumophila</i>	Bacterium	Legionnaire's Disease	12.30
<i>Mycobacterium tuberculosis</i>	<i>M. tuberculosis</i>	Bacterium	Tuberculosis (TB)	10.0
<i>Pseudomonas aeruginosa</i>	<i>P. aeruginosa</i>	Bacterium		3.90
<i>Serratia marcescens</i>	<i>S. marcescens</i>	Bacterium		6.160
<i>Listeria monocytogenes</i>	<i>Listeria</i>	Bacterium	Listeriosis	3.0
<i>Enterobacter cloacae</i>	<i>E. cloace</i>	Bacterium	Pneumonia, UTIs, Sepsis	12.80
<i>Salmonella</i>		Bacterium	Enteric Fever, Typhoid Fever	7.60
<i>Clostridium botulinum</i>	<i>C. botulinum</i>	Bacterium	Botulism	10.70
<i>Clostridium difficile</i>	<i>C. diff</i>	Spore	Colitis	16.0
<i>Penicillium</i>	Blue mold	Mold	Talaromycosis	80.0
<i>Aspergillus niger</i>	<i>A. niger</i>	Mold	Aspergillosis, black mold poisoning, Otomycosis	226.0
<i>Rhizopus stolonifer</i>	Black bread mold, <i>Rhizopus nigricans</i>	Mold	Zygomycosis	191.0

* Nominal Ultraviolet dosage (mJ/cm²) necessary to inactivate better than 99% of specific microorganism. Visit Ultraviolet.com/microorganisms-inactivated for complete listing.



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GERMICIDAL ULTRAVIOLET EQUIPMENT & LAMPS • MANUFACTURERS / ENGINEERS / SALES / SERVICE

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