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**Highland
Equipment Inc.**

Stainless Steel Equipment

The Solution for Liquid Sweetener Tank Sterilization

NUTRIPURE™ SANITARY CONDITIONERS



NUTRIPURE™ Sanitary Conditioners are used to ventilate the air space above the liquid sweeteners and edible oils in Liquid Storage Tanks.

GERMICIDAL ULTRAVIOLET:

Since 1963, Atlantic Ultraviolet Corporation has pioneered the discovery and development of beneficial uses of ultraviolet energy. Over the years, these efforts have led to the development of valuable, cost effective and environmentally sound techniques and products now known and utilized throughout the world.

Ultraviolet is a unique and rapid method of disinfection utilizing germicidal ultraviolet lamps that produce short-wave radiation that is lethal to bacteria, virus and other microorganisms.

An ever growing range of industries and consumer applications have found ultraviolet to be the ideal solution for their air treatment needs. Atlantic Ultraviolet equipment and systems are manufactured in the USA.

USES AND APPLICATIONS:

NUTRIPURE™ Sanitary Conditioners have long been used commercially by manufacturers of food, pharmaceuticals and drinks to ventilate the air space above the liquid in storage tanks.

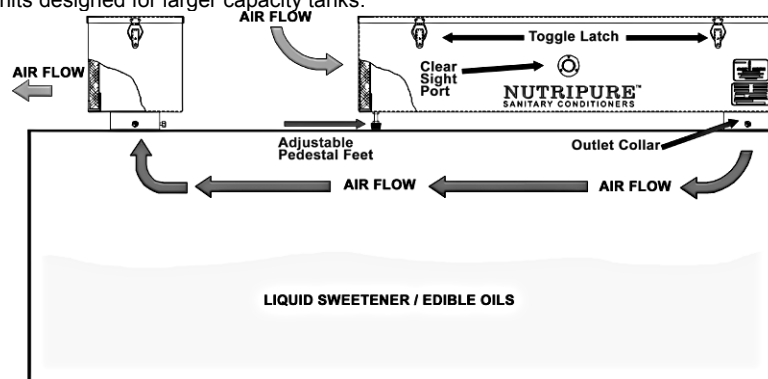
The purpose of this equipment is to prevent condensation, which has a tendency to dilute the sweetener and oils. When diluted, the sweetener has a strong tendency to promote the growth of bacteria and mold on the liquid surface. The NUTRIPURE™ Sanitary Conditioner ensures that bacteria-free air is used to keep the inside air temperature consistent with the temperature of the air outside the tanks.

NUTRIPURE™ Sanitary Conditioners force bacteria-free air into the air space above the liquid in the storage tank and the tank vent provides an outlet for this air, while at the same time preventing contaminants or debris from entering the storage tank.

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METHOD OF OPERATION OF THE NUTRIPURE™:

The **NUTRIPURE™ Sanitary Conditioner** is mounted on top of the liquid storage tank and draws outside air through the electrostatic filter to the ultraviolet exposure chamber. Ultraviolet radiation kills airborne microorganisms, bacteria and mold spores. An internal blower directs the filtered and purified air into the empty air space of the storage tank. The air is continuously circulated, replaced and finally exhausted through a separate filtered vent located opposite the ultraviolet unit. The constant circulation of air prevents condensation from forming on the interior surfaces of the storage tank. Condensation would otherwise drip into the product, providing an ideal environment for the growth of bacteria, viruses, spores and microorganisms. The electrostatic filters collect dust, spores and contaminants and prohibit the entry of insects into the tank and piping systems. Ultraviolet output and blower capacity are carefully matched for maximum radiation effects on filtered air passing through the ultraviolet exposure chamber. The ultraviolet output and blower capacity are increased in units designed for larger capacity tanks.



SPECIAL FEATURES & OPTIONAL ACCESSORIES OF THE NUTRIPURE™:

• STAINLESS STEEL CONSTRUCTION

The chamber is stainless steel for an attractive finish, unparalleled strength and durability.

• OBSERVATION PORT

A visible glow through the clear sight glass provides positive indication of germicidal lamp operation.

• GERMICIDAL LAMPS

Genuine Ster-L-Ray™ Ultraviolet Germicidal Lamps provide the utmost in quality, sustained high output and long life.

• LAMP HOLDERS

Steadfast™ Lampholders are spring-loaded telescopic type that facilitates convenient, easy lamp change that is quick and hassle free.

Ster-L-Ray™, Sentinel™ and Steadfast™ are registered trademarks of the Atlantic Ultraviolet Corporation.

• PARTICULATE FILTERS

- Washable Electrostatic Filter (2B-SC, 3B-SC, 6B-SC)
- Absolute Filter H. E. P. A. Type (4B-ASC, 5B-ASC, 6B-ASC)
- Disposable Particulate Filters (optional)

• POLISHED REFLECTOR

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

• ELAPSED TIME INDICATOR

The Elapsed Time Indicator is a real-time, non-resettable display of accumulated operating time (optional).

• **LAMP OPERATION INDICATOR SENTINEL™** is an external monitor (remote up to 25' away) that indicates whether the lamps inside the ultraviolet unit are operational (optional).

SIZING GUIDE FOR THE NUTRIPURE™ SANITARY CONDITIONER:

Model	Size of Tank
2B-SC	6,000 gallon tank up to 13 ft. in diameter
3B-SC	20,000 gallon tank up to 20 ft. in diameter
4B-ASC	6,000 gallon tank up to 13 ft. in diameter
5B-ASC	20,000 gallon tank up to 20 ft. in diameter
6B-SC	50,000 gallon tank
6B-ASC	50,000 gallon tank
6B-SC (2)	100,000 gallon tank
6B-SC (3)	200,000 gallon tank
6B-SC (4)	400,000 gallon tank

• Other Models Available, Consult Factory

SPECIFICATIONS FOR NUTRIPURE™ SANITARY CONDITIONER:

Model	Nominal Unit Capacity	Dimensions			Electrical Requirement	Replacement Lamp
		Length	Width	Height		
2B-SC	72 cfm	34-1/2"	7-3/4"	7-3/4"	1.30 amp	05-1348
3B-SC	140 cfm	34-1/2"	7-3/4"	7-3/4"	2.90 amp	(2) 05-1348
4B-ASC	72 cfm	48"	10-1/8"	10-1/4"	2.00 amp	05-1348
5B-ASC	140 cfm	39"	10-1/8"	10-1/4"	2.90 amp	(2) 05-1348
6B-SC	295/435 cfm	43-1/16"	14-3/16"	12-3/32"	4.93 amp	(4) 05-1352
6B-ASC	545/760 cfm	61-7/16"	14-1/16"	12-1/16"	5.96 amp	(4) 05-1352

- 120 Volt 60 Hz and 220 Volt 50 Hz units are standard
- Electrical Requirement based on 120 Volt 60 Hz unit
- Consult factory with specific power requirements
- Sunscreen / Splash Guards Available, Consult Factory



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SPECIFICATIONS FOR NUTRIPURE™ SANITARY CONDITIONER:

Model	Dimensions		
	Length	Width	Height
2B-TV / 3B-TV	7-3/4"	7-3/4"	7-3/4"
4B-ATV / 5B-ATV	16-1/4"	10-1/4"	10-1/4"
6B-TV	12-1/4"	12-1/4"	12-1/4"
6B-ATV	22-5/8"	14-1/4"	12-1/4"

STER-L-RAY™ GERMICIDAL LAMP DATA:

Lamp No.	Model No.	Nominal Lamp Length	Holder Length & Lamp	Power Consumption 1	Ultraviolet Output 2	Rated Average Effective Life
05-1348	2B-SC	21-7/8"	24"	25 Watts	8.5 Watts	10,000 Hours
	3B-SC	(556 mm)				
05-1348	4B-ASC	21-7/8"	24"	25 Watts	8.5 Watts	10,000 Hours
	5B-ASC	(556 mm)				
05-1352	6B-SC	27-7/8"	30"	32 Watts	11.2 Watts	10,000 Hours
	6B-ASC	(708 mm)				

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).

ADVANTAGES OF THE NUTRIPURE™ :

- **EFFECTIVE** - virtually all microorganisms are susceptible to NUTRIPURE™ disinfection
- **ECONOMICAL** - equipment cost generally less than other alternatives
- **SAFE** - no danger of over dosing and no chemicals to contend with
- **FAST** – rapidly disinfects air as it passes through unit
- **EASY** - operation is simple and straightforward
- **AUTOMATIC** - continuous disinfection without special attention or measurements
- **VERSATILE** - capacities available to treat various storage tanks
- **LOW MAINTENANCE** - annual lamp replacement and periodic filter cleaning is all that is required



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