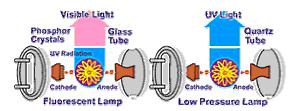
# **ULTRAVIOLET WATER PURIFICATION**

#### HOW DO ULTRAVIOLET PURIFIERS WORK?

Atlantic Ultraviolet Corporation's purifier units contain one or more germicidal ultraviolet lamps. The **Ster-L-Ray™** germicidal lamp produced by Atlantic Ultraviolet Corporation is a short wave low-pressure mercury vapor tubes that produces ultraviolet wavelengths that are lethal to microorganisms. Approximately 95% of the ultraviolet energy emitted is at the mercury



resonance line of 254 nanometers. This wavelength is in the region of maximum germicidal effectiveness and is highly lethal to virus, bacteria and mold spores. Therefore, the water or air that passes through the chamber is exposed to the germicidal uv light and the genetic material of the micro-organism is deactivated, which prevents them from reproducing and renders them harmless.

#### WHAT ARE THE BENEFICIAL USES OF GERMICIDAL UV?

Ultraviolet technology is a non-chemical approach to disinfection. In this method of disinfection, nothing is added which makes this process simple, inexpensive and requires very low maintenance. Ultraviolet purifiers utilize germicidal lamps that are designed and calculated to produce a certain dosage of ultraviolet (usually at least 16,000 microwatt seconds per square centimeter but many units actually have a much higher dosage.) The principle of design is based on a product of time and intensity - you must have a certain amount of both for a successful design.

#### **APPLICATIONS:**

#### **Drinking Water**

- under sink installs & water vending machines
- aircraft, boats & recreational vehicles
- water wells & water cisterns
- swimming pool & hot tubs
- farms, ranches & trailer parks
- schools & hotels
- aquarium, hatcheries and nurseries
- ice making

#### Medical

- pharmaceutical production
- laboratories, hospitals and clinics
- maternity labor and delivery areas
- pathology labs, kidney dialysis
- animal husbandry

#### Food Processing

- brewery & winery
- soft drinks, fruit drinks and juices
- bottling facilities
- diary processing
- liquid sugars, sweeteners and edible oils
- water based lubricants
- pure wash water

#### Industries

- cosmetics and electronic production
- pond & lake reclamation
- laundry water



## CAT730.2



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ULTRAVIOLET WATER PURIFIERS

Applications: point of use, under the sink, recreational vehicles, vans, boats, ponds, aquariums, ice makers and water vending machines.





ULTRAVIOLET WATER PURIFIERS Pure Water Pack™

Applications: point of use, under the sink



- 1.5 or 3.0 gallons per minute [gpm], 90 or 180 gallons per hour [gph]
- Potable and high purity water applications
- 316 Stainless Steel, electropolished and passivated inside and out
- Dual heads may be removed and rotated for versatility during installation
- Easy Off<sup>™</sup> Retainer Cap for effortless lamp change

- Fused quartz sleeve insure optimum lamp output at normal potable water temperature

BIO-1.5								
Flow Rate	1.5 gpm							
Voltage	120v 60 Hz	220v 50/60 Hz	12v DC					
Current (Amps)	.24	.125	1.27					
Unit Dimensions	nit Dimensions 14-1/2"(L) x 3-11/16"(W) x 3-7/8"(H)							
Shipping Wt.	8 lbs.	8 lbs.						
Rated Water Pressure	Maximum PSI 125							
BIO-3.0								
Flow Rate	3 gpm							
Voltage	120v 60 Hz	220v 50/60 Hz	12v DC					
Current (Amps)	.33	.17	1.67					
Unit Dimensions	20-1/8"(L) x 3-11/16"(W) x 3-7/8"(H)							
Shipping Wt.	9 lbs.							
Rated Water Pressure	Maximum PSI 125							

- 1.5 gallons per minute, 90 gallons per hour

- Potable and high purity water applications

- 316 Stainless Steel, electropolished and passivated inside and out
- Dual filter housing with sturdy 5 micron sediment and carbon filter
- Unit and filters connected to stainless steel mounting bracket

BIO-1.5 & Pure Water Pack™							
Flow Rate	1.5 gpm						
Voltage	120v 60 Hz	220v 50/60 Hz	12v DC				
Current (Amps)	.24	.125	1.27				
Unit Dimensions	15"(L) x 5-5/8 x 17-1/2"(H)	"(W)					
Shipping Wt.	18 lbs.						
Rated Water Pressure	Maximum PSI	laximum PSI 125					



## CAT730.4



Applications: point of use, under the sink, water vending machines, aircraft, boat & rec vehicles, as well as with small reverse osmosis systems.



- 1 to 9 gallons per minute [gpm], 60 to 540 gallons per hour [gph]
  - Potable & high purity water point of use applications
- 304 Stainless Steel, electropolished and passivated inside and out
  - Easy-Off<sup>™</sup> Retainer Cap for effortless lamp change

Model	GPM	мсри	I nlet and	Replacement	Power Consumption		Dimen: (in.)	Shipping Data (lb.)		
Woder			Outlet [NPT](1)	Lamps	(	Length	Width	Height	Gross Wt.	Net Wt.
Min-1	1	60	1/4"	05-1119	14	12-3/8	2-1/2	3	6	5
Min- 1.5	1.5	90	1/4"	05-1366	16	15-3/8	2-1/2	3	7	6
Min-3	3	180	3/4"	05-1366	16	16-1/4	4-1/4	5-9/16	10	9
Min-6	6	360	3/4"	05-1370	24	22-1/4	4-1/4	5-9/16	11	10
Min-9	9	540	3/4"	05-0097A	34	29-3/8	4-1/4	5-9/16	14	12

(1) Min-1 and Min-1.5 have female pipe threads. Min-3, Min6 & Min-9 have male pipe threads.

(2) Total power consumption including ballast loss (approximately).

Maximum recommended operating pressure for all purifiers is 100 PSI.

• Pressure drop at maximum recommended flow rate is less than 5 PSI.

· Consult factory with specific power requirements.

• All data shown above reflects 120 Volt 60 Hz operation. Minipure® units are available for operation on public power supplied throughout the world.

- 2 to 20 gallons per minute [gpm], 120 to 1200 gallons per hour [gph]

- Potable & high purity water applications
- 316 Stainless Steel, electropolished and passivated inside and out
- Easy-Off<sup>™</sup> Retainer Cap for effortless lamp change

- Drain Plug for in place drainage of the purifier

- Sight port to view germicidal lamp operation

Model	GPM	GPH	I nlet and	Replacement	Power	Unit I	Shipping Data (lb.)			
			Outlet [NPT](1)	Lamps	Consumption [Watts] (2)	Length	Width	Height	Gross Wt.	Net Wt.
MP13A	2	120	1/2"	05-1400-R	14	13-1/2	4- 5/16	8-3/16	9	8
MP16A	3	180	3/4"	05-1098-R	18	19-1/2	4- 5/16	8-3/16	10	9
MP22A	6	360	3/4"	05-1097-R	24	22-1/2	4- 5/16	8-3/16	13	11
MP36C	12	720	1"	05-1343-R	44	36-1/2	5- 11/16	9-1/2	30	25
MP49C	20	1,200	1-1/2"	05-1334-R	54	49-1/2	5- 11/16	9-1/2	34	29
CE/RoHS										
MP36C	12	720	1"	05-1343-R	44	36-1/2	5- 11/16	9-1/2	30	25

(1) All inlets and outlets are male pipe thread.

(2) Total power consumption including ballast loss (approximately).

· Maximum recommended operating pressure for all purifiers is 100 PSI.

• Pressure drop at maximum recommended flow rate is less than 5 PSI. • All data shown reflects 120 Volt 60 Hz operation.

MightyPure<sup>™</sup> is available for operation on public power supplied throughout the world.

Consult factory with specific power requirements.

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Applications: home water wells, laboratories, farms and ranches etc.



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## SANITAD

Applications: home wells, farms, ranches, dairies, bottling plants, pharmaceutical and cosmetic industries, laboratories, hospital, electronic industries, food industry, hotels, aquarium and hatcheries, nurseries and pools, etc.



- 2 to 416 gallons per minute [gpm], 120 to 25,000 gallons per hour [gph]
- Potable & high purity water applications
- 316 Stainless Steel, electropolished and passivated inside and out
- Removable flanged head for easy disassembly
- Patented dual action wiper mechanism for cleaning of the quartz sleeve - Model S2400C has heads that can be removed & rotated
- Protective Coating for seawater & corrosive environments available

Model	CDM	GPH	I nlet and	Replacement	Power	Unit I	Shipping Data (lb.)			
woder	GPIVI	GPH	Outlet [NPT](1)	Lamps	[Watts] (2)		Width	Height	Gross Wt.	Net Wt.
S14A (3)	2	120	1/2"	05-1400-R	14	16-3/8	4- 5/16	8-3/16	11	7
S17A (3)	3	180	3/4"	05-1098-R	18	19-3/8	4- 5/16	8-3/16	11	8
S23A (3)	6	360	3/4"	05-1097-R	24	25-3/8	4- 5/16	8-3/16	14	14
S37C (3)	12	720	1"	05-1343-R	44	39-3/8	5- 11/16	9-1/2	30	30
S50C (3)	20	1,200	1-1/2"	05-1334-R	54	52-3/8	5- 11/16	9-1/2	36	36
S2400C (4)	40	2,400	2"	05-1311-R	140	52-1/8	6-5/8	11-1/2	49	36

(1) All inlets and outlets are male pipe thread.

(2) Total power consumption including ballast loss (approximately).

(3) Units are manufactured in Type 316 Stainless Steel

(4) Unit is manufactured in Type 316 Stainless Steel and has dual removable heads.

• Maximum recommended operating pressure for all purifiers is 100 PSI.

- Pressure drop at maximum recommended flow rate is less than 5 PSI.
- 90 to 450 gallons per minute [gpm], 120,000 to millions of gallons per day [gpd]
- Manifolding multiple chambers achieves higher flow rates
- Clear wastewater, clear fresh and high purity water disinfection
- Modular, multi-lamp pressure vessel chamber

 Control panel includes display window, lamp operation indicator, elapsed time indicator; dual removable flanged heads; dual drain fittings; multiple access ports and sight port
Manual or automatic wiping mechanism and customized monitoring systems available.



	Standard	-	lomina cities/	-	Number	Powe Require		Total	Unit Dimensions (in.)			
Model		Waste				120V	230V	Watts	Length	Width	Height	
M50	2" NPT	70	90	100	4	4 AMPS	2.1 AMPS	480	100	16	14	
M90	3" 150# Flange	115	150	190	7	6.5 AMPS	3.4 AMPS	780	100	16	16	
M150	4" 150# Flange	200	270	325	12	9 AMPS	4.7 AMPS	1080	100	18	18	
M250	4" 150# Flange	335	450	560	19	14 AMPS	7.3 AMPS	1680	102	21	26	





Applications: large scale disinfection of industrial and municipal water and wastewater; ideal solution for water treatment requirements, such as water recycling and disinfection of processed water or wastewater discharges.

## CAT730.6

Ultraviolet Water Purifier Comparison S - Standard Feature O - Optional Feature	Bio-Logic® PWP™ 1.5 to 3.0 gallons per minute	Minipure® 1 to 9 gallons per minute	MightyPure™ 2 to 20 gallons per minute	Sanitron® 2 to 20 gallons per minute	Sanitron <u>®</u> 40 to 416 gallons per minute	Megatron® 90 to 450 gallons per minute
Stainless Steel Construction	S	S	S	S	S	S
Ultraviolet Germicidal Lamp <i>with 10,000 Hours Rated Effective Life</i>	S	S	S	S	S	S
Quick Lamp Change with the Easy Off™ Retainer Cap	S	S	S	S	S	S
Fused Quartz Sleeve	S	S	S	S	S	S
Lamp Out Indicator Light(s)	S	S	-	-	-	S
Sight Port to View Lamp Operation	-	-	S	S	S	S
Drain Fitting	-	-	S	S	S	S
Patented Dual Action Wiper Mechanism - <i>Manual</i>	-	-	-	S	S	0
Patented Dual Action Wiper Mechanism - <i>Automatic</i>	-	-	-	-	-	0
Flanged Heads that can be removed or rotated	-	-	-	-	S	S
Sediment and Carbon filter	S	-	-	-	-	-
Mounting Kit	S	0	О	О	О*	-
Guardian™ Ultraviolet Monitor	-	-	0	0	0	0
Sentry™ Safety Sensor	0	0	0	0	0	-
Audio Alarm	0	0	0	0	0	0
Solenoid Valves	-	0	0	0	0	-
Flow Control Valves	-	0	0	0	0	-
Elapsed Time Indicator	0	0	0	0	0	S
Time Delay Mechanism	-	0	0	0	0	-
Residential use	х	x	х	Х	х	-
Commercial Use	-	-	X	Х	Х	X

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