



# save as you wash

High performance Simple installation Safe to operate Dissolved ozone

**OWS Series** 

# Professional Ozone Laundry Hospitality | Healthcare | Laundromat

BicSul

# **BigSure** professional

At BioSure Professional we produce ozone generation and integration equipment specifically for use in the professional laundry industry. We take our commitment to quality seriously and strive to continually improve our products in order to ensure we are providing the highest quality ozone laundry solutions available.

We are dedicated to providing our customers with complete solutions for their laundry needs through our cost-saving and ecologically-responsible units.



\*Some features happen only with programmable washer-extractors.

# **Features**

- Compact, wall-mounted
- Flow triggering, automated operation
- Powered by EOG, no need for air feed
- Consistent, independent of air quality
- Durable, major maintenance every 3 years
- Safe, with built-in destructor controlling off-gas
- Flexible, integration on multiple washers available
- Concentrated dosage enhancing sanitation contact
- Programmable dosing times available for different contamination demands

# Application







# **Advantages**

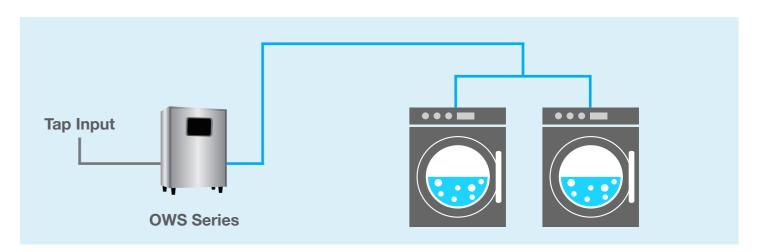
- Minimum maintenance
- No feed air preparation
- High concentration
- Consistent oxidation concentration
- Effective sanitation & deodorization

Laundromat

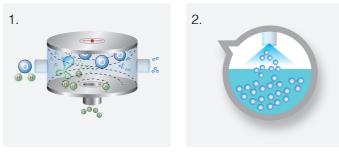
- Easily integrated to existing washers
- Low cost

# Installation

- OWS Series is designed to operate 24/7 in an extremely busy working environment.
- For laundromat application, depending on the usage of washers and water flow, OWS Series could support multiple washers.



# **How It Works**



Generates high purity ozone directly from the water (O<sub>3</sub> by 28 wt%).

Delivers ozonated water to washer extractor.

# **Dissolved vs. Bubble**

If you believe chlorine bleach in liquid solution is correct, why bother using more dangerous chlorine gas?

BioSure Professional's OWS Series provides instantly dissolved ozone solution rather than gaseous ozone as almost no one is applying gaseous chlorine in the modern commercial laundry. Most washer manufacturers void their warranty if the "bubble" system is applied.

Highly concentrated dissolved ozone solution delivers great wash results with no worries of ozone off-gasping, unlike other technologies.

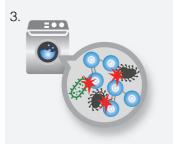
# Safe to Operate

#### OSHA guidelines for ozone off-gas

- 0.2 ppm for no more than 2 hours of exposure
- 0.1 ppm for 8 hours per day exposure

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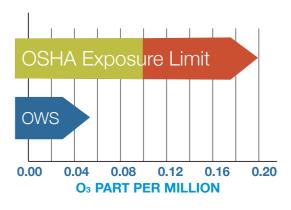
usy working environment.



Dissolved ozone kills bacteria, viruses, and superbugs.



Oxygen opens fibers to promote cleaning and drying.





#### Sanitizes In All Cycles

Ozone is one of the most powerful disinfectants known to man and proven effective against all micro-organisms, bacteria, yeasts, moulds, and viruses - including superbugs such as MRSA.

- BioSure Professional kills 99.999% of harmful bacteria on all wash cycles.
- Eliminates odor for the washer extractor.



# **Enhances Chemical Performance**

Because ozone allows existing chemicals to work better, overall chemical demand can be reduced, especially to the need for harsh and high-pH chemicals in conventional washing processes.



# **Improves Washing Results**

Ozone in water solution performs oxidation to linen soils and destroys odor-causing elements. Also, the oxygen from the ozone penetrates and opens up the fibers. Thus:

- Recovering linen softness.
- Refreshing smells.



Bicsure PROFESSIONAL



## **Shorter Drying Times**

Because fibers are opened, moisture release becomes easier in the dryers or on a flatwork ironer. Thus:

- Creating much faster drying times.
- Reduce energy use in drying.





## **Reduces Water & Energy Use**

Dissolved ozone supplies oxygen to the wash water, enhancing chemical effectiveness. Thus:

- Fewer rinse steps required or shorter wash cycles.
- Less need for water heating.



## **Improves Effluent Quality**

Due to fewer chemicals are used and also the oxidation of ozone in the wash water, both biochemical and chemical oxygen demands (BOD & COD) in the wastewater will be greatly reduced.

#### **Deodorization**

Ozone is an effective deodorizer that works by oxidizing and breaking molecular bonds of many organic and in inorganic compounds typically responsible for odors that are found in washer-extractor and on soiled laundry.

#### **Improves Textile Life & Quality**

Shorter cycles or washing times and cooler temperature water means less wear and tear on linens. Also, reduced exposure to harsh chemicals improves fabric life.

#### **Results & Performance**

SGS	BioSure Professional Ozonated Water Efficacy Test						
	Test Item		0 sec	5 sec	15 sec	Reduction (%)	
Antimicrobial Eciency Test	Staphylococcus aureus	(CFU/ml)	5.4 x 10 <sup>5</sup>	Not detected	Not detected	> 99.999	
	Escherichia Coli	(CFU/ml)	3.4 x 10 <sup>5</sup>	Not detected	Not detected	> 99.999	
	Salmonella	(CFU/ml)	1.1 x 10 <sup>5</sup>	1.0 x 10	Not detected	> 99.999	
	Pseudomonas aeruginosa	(CFU/ml)	4.5 x 10⁵	Not detected	Not detected	> 99.999	
	Candida albicans	(CFU/ml)	1.3 x 10⁵	Not detected	Not detected	> 99.999	
	MRSA	(CFU/ml)	2.4 x 10 <sup>5</sup>	Not detected	Not detected	> 99.999	

#### **Technology Comparison**

BioSure Professional's patented Indirect Electrolytic Ozone Generation (EOG) technology is the world's leading technology for ozone generation. It is a unique technology that produces ozone from water instead of gaseous air or oxygen. No other substance besides water is used in the electrolysis and only pure ozone with no Nitrogen Oxides (NOx) will be produced. The technology has proven to fulfill the demand within a professional environment for providing a reliable and consistent performance with minimal maintenance required as most others do not.

#### EOG Technology

#### No need to feed air handling

Performance is independent of humidity and air quality (lint in the air).

#### No by-product, NOx-free

No NOx hazards, no acidification, and associated corrosion in contact with equipment or materials.

#### Promoted Ozone Purity - up to 28wt%

Higher ozone purity means higher efficiency. iEOG delivers 6 to 10 times better dissolution efficiency than the ordinary Corona Discharge system.

#### Consistent performance

For ozone generated from water electrochemically, the production is consistent and independent of environmental variables.

#### Reliable operation

Full-time self-monitoring, real-time collective alarm, and service codes are available.

#### **Conventional Corona Discharge**

Performance is highly dependent on humidity and air quality (lint in the air). Feed air preparation is required (air filters, air dehumidifier, or oxygen concentrator), meaning frequent maintenance needs.

NOx production in corona discharge represents a health hazard and potentially leads to corrosion.

About only 1-3wt% of ozone is produced in the corona discharge ozone system without air pretreatment. More nitrogen is dissolved in water and very little ozone can be dissolved.

Inconsistent performance fluctuation can happen in daily operations due to air quality variables, especially lint and humidity. Frequent daily and weekly checkups are required for on-site service engineers.

Self-monitoring is not available leading to potential blind operation.

#### **Specifications**

#### Washer-extractors:



	EOS7177-PQ		
	> 0.5 ppm		
	2300 LPH (10 GPM)		
ospitality	20 - 35 lbs x 2 unit		
aundromat	In totel 80 lbs combination		
ealthcare	20 - 35 lbs x 1 unit		
oltage	AC 100-240V, 50/60Hz		
ower Consumption	96W		
imension	140 x 128.5 x 210.5 mm		
et Weight	1.3 kg (2.87 lbs)		
	3⁄4"		

	EOS8131-CD		
	>1.0 ppm		
	6000 LPH (26.4 GPM)		
ospitality	60 lbs x 2 unit / 120 lbs x 1 unit		
aundromat	In totel 120 lbs combination		
ealthcare	60 lbs x 1 unit		
oltage	200 - 240V, 50 Hz		
ower Consumption	750W		
imension	550 x 310 x 680 mm (leg height: 30 mm)		
et Weight	50 kg (110 lbs)		
	1 1/2"		

	EOS8132-SD		
Conc.	>1.0 ppm		
	6000 LPH (26.4 GPM)		
ospitality	120 lbs x 2 unit / 250lbs unit x 1		
aundromat	In totel 250 lbs combination		
ealthcare	120 lbs x 1 unit		
oltage	200 - 240V, 50 Hz		
ower Consumption	950W		
imension	760 x 350 x 1000 mm (leg height: 34 mm)		
et Weight	80 kg (176.4 lbs)		
	1 1⁄2"		

#### **Tunnel Washers:**

G Series	Model No.	EOS8131-CL	EOS8132-CL	EOS8134-CL	
	Ozone Production	3 g/h	6 g/h	9 g/h	
	Voltage	200 - 240V, 50 Hz			
	Power Consumption	300W	600W	900W	
	Dimension	905 x 260 x 1079.5 mm			
	Net Weight	60 kg (132 lbs)	67 kg (148 lbs)	75 kg (165 lbs)	
	Input/Output Diameter	3/8"			

For the tunnel washer application, please contact our sales agents.

# Sanitized & Fresher Smelling TRUE CLEAN

# Cleaner, Softer & longer lasting linen **REAL SAVINGS**

#### **About Us**

Since 1988, BES Group has been the global leader of electrolytic technology that converts water to ultra-pure ozone and hydrogen. Products applications include Food Safety, Ice & Beverage, Dentistry, Healthcare, Professional Laundry, Professional Cleaning, Maritime, and Home Sanitation & Wellness. All products and components are tested for high performance, safety, efficacy and reliability with certifications from government agencies and leading 3rd party labs.





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