

# SPECIFICATIONS

Model No.		CDU	MWDS mini	MWDS
<b>Configuration</b>				
Type of Ozone Generators	Indirect Electrolytic Ozone Generation (iEOG)			
Source of Ozone	Water electrolysis			
Control Method	Sensor	Flow switch		
Application Method	Point-of-use	Point-of-entry		
<b>Performance</b>				
Output Pressure <sup>*1</sup>	0.3kg/cm <sup>2</sup> (4.4 psi)	≤ Input water pressure (Max. 3kg/cm <sup>2</sup> [42.7 psi])		
Ozonated Water Concentration <sup>*1,*2,*3</sup>	12-4 ppm / 8-2 ppm	8~0.5 ppm	>0.5 ppm	
Capacity Recommendations (Total water volume in connecting waterlines)	100 LPH / 200 LPH	≈ 300 LPH	≈ 750 LPH	
<b>Operating Requirements</b>				
Power Supply	<input type="checkbox"/> 100V/60Hz <input type="checkbox"/> 120V/60Hz <input type="checkbox"/> 220V/50Hz <input type="checkbox"/> 240V/50Hz			
Power Consumption	100 – 120V 200 – 240V	60 W	900 W 700 W	
Input Water	Quality	Municipal Water Source <sup>*3</sup>		
	Pressure	2.0 - 4.0 kg/cm <sup>2</sup> (29 - 57 psi)		
	Temperature	5 - 30°C (41 - 86 °F )		
	Piping Diameter	3/8"	1"	
Environment	Room Temperature	5 - 35°C (41 - 95 °F )		
	Room Conditions	Well Ventilated Environment		
<b>Design Parameters</b>				
Dimension	Depth (D)	176mm(6.9in)	320mm(12.6in)	
	Width (W)	330mm(12.9in)	550mm(21.7in)	
	Height (H)	435mm(17.1in)	700mm(27.6in)	
Leveling Legs		5mm(0.2in)	85mm(3.3in)	
Net Weight		7.5kg(15.5lb)	50kg(110lb)	
Frame Material		ABS	304 SS casing	
Pump Material		NA	304 SS impeller	
Installation		Wall mount / Counter top	Stationary	
Noise Level		≤40	Max. 60-65 bBA (at1m)	
<b>Application &amp; Installation</b>				
Sink Attachment		✓	✗	✗
Direct Supply	Faucets	✗	✗	✓
	Chairs	✗	1 ~ 4	5 ~ 10

Remark:

\*1. Results are based on input water pressure given at 3 kg/cm<sup>2</sup> (43.5 psi).

\*2. Ambient room temperature: 20°C (68 °F ).Using cool water 10°C (50 °F ) or below will attain best results.

\*3. Recommend pH between 6 - 8 with a standard water hardness less than 120 ppm with water electrical conductivity: ≤500 us/cm. Most standard municipal water quality is adequate.



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## The Safest Dental Water For Your Patient



Patients deserve 100 % safety water more than just quality water

## CDU & MWDS Series

### Dissolved Ozone Solution for Medical Water Disinfection

- ▲ Dental Unit Water (DUW)
- ▲ Dental Unit Waterlines (DUWLs)
- Continuous Bacteria-free Water Supply
- Biofilm Removal & Prevention
- Patient Care Safety



**BIOWELL** series deliver state-of-the-art ozone disinfection technology, specifically designed for use in dental clinics, dental schools and public health dental facilities. We are dedicated to provide our customers with complete solutions for their needs in improving infection control and risk management through our effective, economical, and ecological friendly units.

### Hazards of Using Infected Water

Studies have shown that output water from Dental Unit Waterlines (DUWLs) is usually heavily contaminated with microorganisms, particularly bacterial species. As the biofilm grows and develops, planktonic cells and/or cluster cells and their by-products, such as bacterial endotoxins, are released into the water and are subsequently aerosolized by the dental unit instruments e.g. turbine dental handpieces, ultrasonic scalers, air/water syringe, etc. Besides the bad odors coming out of these dirty water lines, the microbial biofilm represents a source of

infection to patients, especially who have a deficient immune system or the elderly. Dental patients and dental healthcare staff become exposed to and can inhale the fine aerosols containing microorganisms, fragments of biofilm and bacterial endotoxins. When this occurs, the potential for contracting serious illness such as Legionnaires Disease is increased exposing the immunocompromised to unnecessary risk.

### The Solution

Taking the benefits of Mother Nature's most powerful disinfectant, **OZONE**, Biowell systems provide a more effective and economical way to offer consistent and unconditional supply of bacteria-free water for dental treatment, and keep waterlines safe and clean. Our solutions accomplish a simultaneous disinfection of DUW and DUWL, and provide a continuous antimicrobial water sanitation at all times.

## MWDS & MWDS Mini

**MWDS** series is designed for dental unit water and waterlines disinfection within direct feed configurations. Automatic sanitation function without manually dosing chemical gives clinics a peace of mind when it comes to DUWL disinfection.



CDU



MWDS

MWDS mini

### CDU

Designed for self-contained water systems, the **CDU** favors the water disinfection at point-of-use prior to bottle filling, with capability up to 180 liters per hour. This compact product enables clinics to use of ozonated water for multiple dental applications.

### Products Features

- Continuous flow of dissolved ozone residual in the water as disinfection treatment in the dental unit waterlines.
- Enable ozone disinfection treatment to flush out the waterlines regularly.
- Continuous bacteria-free water supply instead of the city water.
- Continuous biofilm removal and prevention - kills biofilm layer by layer.
- Bacteria are killed and flushed out of the lines before each patient. This prevents their migration in the patient's mouth.

### Effective results you want

- Enhance existing filtration and UV for water disinfection.**
- Remove chemical processes for waterlines treatment.**
- UV units are generally used to control the bacteria levels in the water, but bacteria such as Pseudomonas species will continue to develop, producing biofilm throughout the system and compromising the water quality.
- To achieve biofilm control, injecting or circulating a disinfectant throughout the system is necessary. Dissolved ozone solution provides an effective cleaning and biocidal treatment, replacing chemical processes previously used.

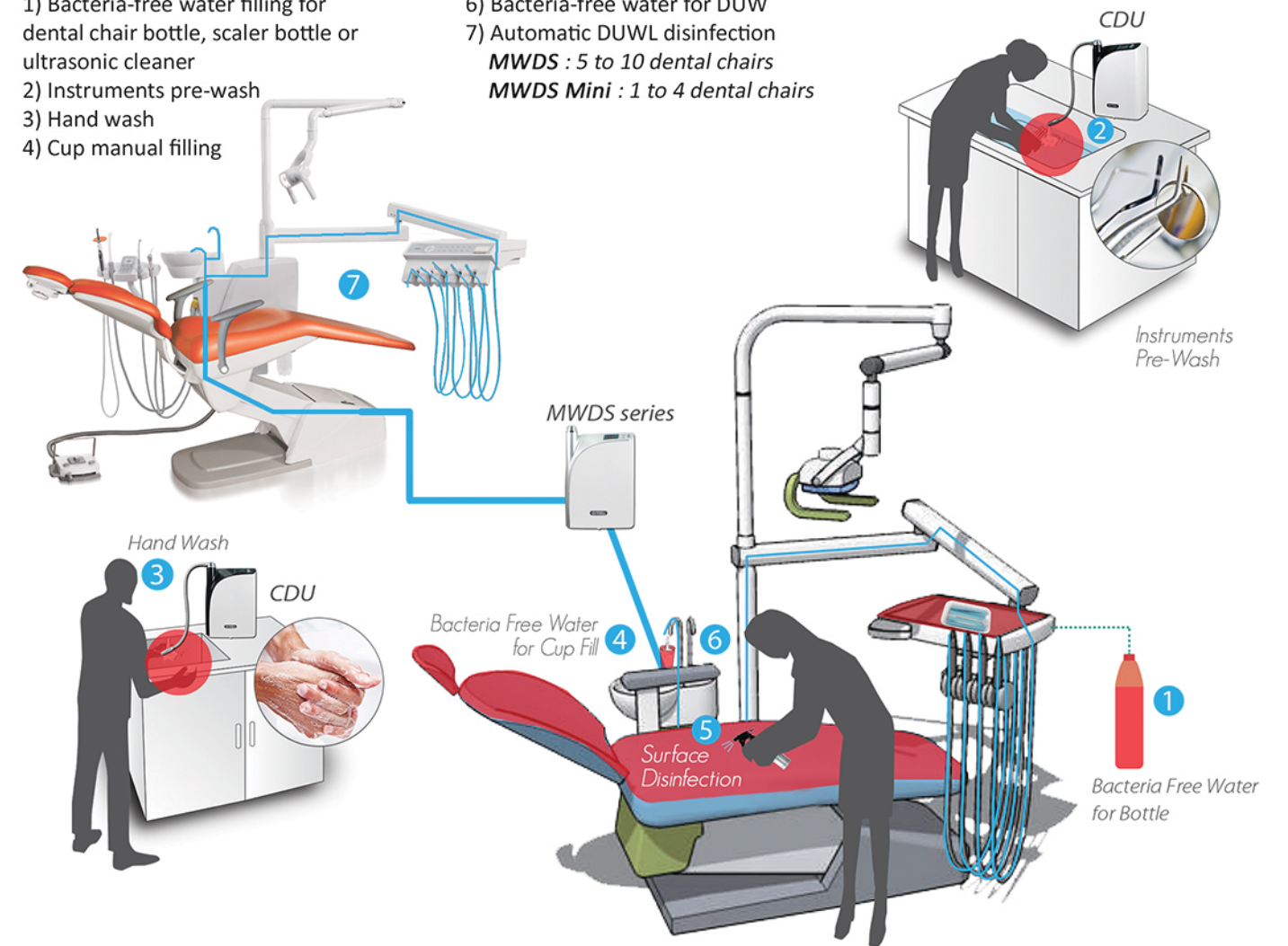
## Chemical free infection Control Solution For Dental Clinics

### CDU

- 1) Bacteria-free water filling for dental chair bottle, scaler bottle or ultrasonic cleaner
- 2) Instruments pre-wash
- 3) Hand wash
- 4) Cup manual filling

### MWDS

- 6) Bacteria-free water for DUW
  - 7) Automatic DUWL disinfection
- MWDS : 5 to 10 dental chairs**  
**MWDS Mini : 1 to 4 dental chairs**



### Leading Standards & Guidelines

- ADA Recommendations : <200 cfu/ml
- CDC Recommendations : Standard set for drinking water standard
- Coolant water used for surgical procedures : 0 cfu/ml

- Drinking Water Standards :**
- USA / Australia : 500 cfu/ml
  - Europe : 200 cfu/ml
  - Japan : 100 cfu/ml

### Dissolved Ozone Treatment

Zero by-product by oxygen, bacteria-free guaranteed

### Chemical Procedures

Harsh chemical residue and chemical handling

### UV Treatment

Scattered and ineffective

### BIOWELL Technology Features

- The world leading dissolved ozone technology for infection control
- Powered by iEOG; Highest purity of ozone generation, NOx-free
- Operates with city water; No need for oxygen cylinders or concentrator
- Not affected by air quality and humidity
- Consistent and immediate on-demand ozonated water production
- Fresh ozonated water is available anytime without preparation, no downtime
- Full time ozone generator, self monitoring & operation status display
- Built-in off gas destruct unit; Safely converts excessive undissolved ozone back into oxygen
- Meets international OSHA off-gas standards

### Benefits of using Biowell series ozonated water systems

- Total Biological Control
  - Ozone destroys all bacteria, viruses, Candida, Protozoa, algae, etc.
- No Resistance Build Up
- Continuous DUW / DUWL biofilm treatment
- Easily Monitored
  - The presence of Ozone in water is readily measured and verified using standard instrumentation and chemical test procedures.
- Safe & Reliable