



Environmental contribution

Coolinger™

2023, July
UTS Inc.

<Non-chemical water purification system>
Micro-nano-bubble / Ozone water generator

Patent
Pending



Environmental management becomes more important !!

Essential challenge for the corporate sustainability



Corporate social responsibility

Employee safety and health

Environmental protection /
SDG's / Increased awareness
of ESG management

Is your factory water properly purified?

- ▶ **Factory wastewater**
subject of regulation (chemical treatment, filter treatment)
- ▶ **Purification of Water tank / Circulating-Water (Cooling tower / Ciller)**
About 40% are treated with chemicals.
(What about disposal of the treated water? Environmental destruction?)
About 60% are regularly cleaned or neglected.
(chemical cleaning, Occur of Legionella, Decrease in productivity)

Is the water in the Elevated-Water-Tank or Water tank really okay?

- ▶ Are there any algae / scale / bacteria?

Are vegetables / fruits washed with chemicals before shipment?



**Our Cooler™ technology
(Ozone water / Micro-nano-bubble)
solves the problem.**



Initiatives for SDGs



Ozone has 150 years of history. Since ozone water has no residual properties, resistant bacteria do not occur, and it is effective in preventing rust, removing slime from pipes, killing algae, and resisting scale.

Also, an ozone water concentration of 0.1mg/L kills common bacteria such as Legionella and E.coli as well as viruses.

On the other hand, it has been proven that ozone water concentration up to 4mg/L is safe for the human body. Since it is designated as a food additive, it is also used in food factories, etc.

The ozone gas raw material of Coolinger™ is generated from high-concentration oxygen by removing nitrogen in the air, and ozone alone (without using chemicals) has deodorizing, decolorizing, and sterilizing effects, so it does not place any burden on the environment.

Since there are no consumables, it can also contribute to the reduction of waste.

Coolinger™

Micro-nano-bubble ozone water generator

Ozone water

×

Micro-nano-bubble

Patent Pending

- ▶ Ozone gas is generated from high-concentration oxygen using O₂ -PSA, the generation efficiency is 5 times that of other companies.
- ▶ Ozone water is made into micro-nano-bubbles, so there is almost no waste ozone and it is possible to maintain the concentration for a long time.



Micro-nano-bubble
Ozone water



Algae, Slime, Scales, Legionella

<Example>

Transparency
(bleaching)



After
24 hrs



Antirust effect



After
4 days



Antifouling effect
(reduction of algae)



After
20 days



Coolinger™

is effective in all industries



▶ Cooling tower water treatment



▶ Elevated tank water treatment



▶ Fish farm



▶ Food washing



▶ Medical washing



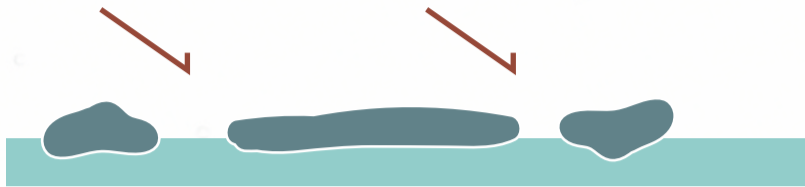
Cooling Tower Cleaning

Reduce man-hours for cleaning and usage of chemicals by installing Coolinger™ !!



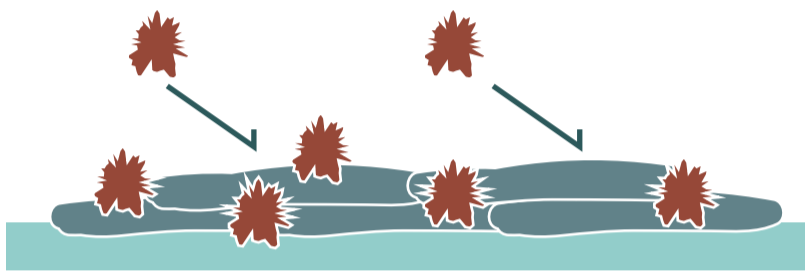
Coolinger™ Technology

► **[Step 1]**



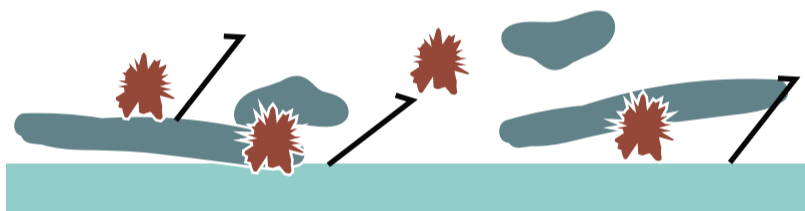
Adhesion of microorganisms and bacteria

► **[Step 3]**



Inorganic substances (minerals, etc.) are captured by the multiplied fungi.

► **[Step 5]**



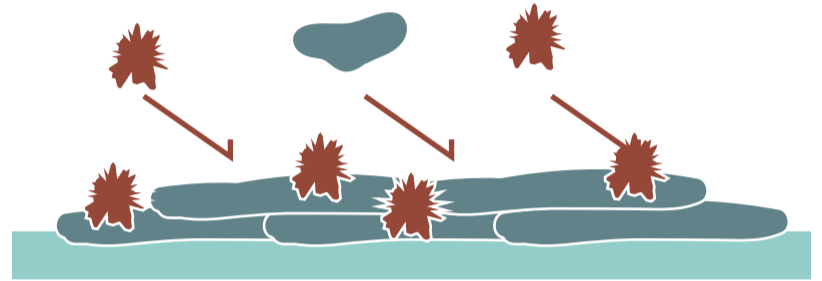
By injecting ozone into this, defects due to sterilization and death of attached microorganisms and bacteria occur.

► **[Step 2]**



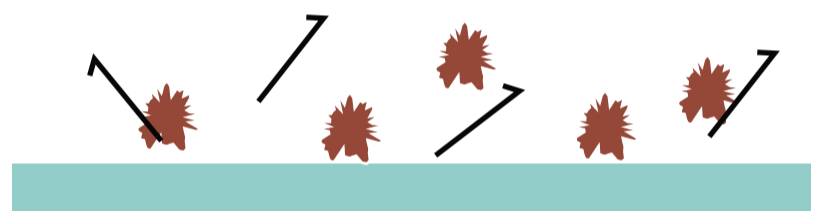
Growth of attached bacteria and secretion of polysaccharides begin

► **[Step 4]**



Further retention leads to long-term persistence and scale formation

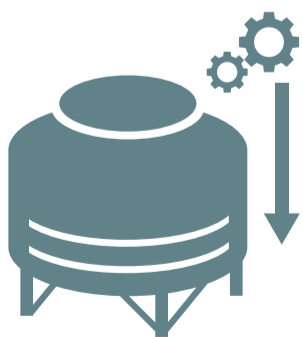
► **[Step 6]**



Lack of minerals

Effects of Algae, Slime, Scale, Legionella bacteria

They can cause the following damage to cooling towers.



Decreased function



Increased power consumption



Increased maintenance



Effects on the environment and human body



Corrosion shortens equipment life

Coolinger™, Mini Coolinger™

Basic specifications



Product Picture



TDU 63-OZ	Model	TDU 33-OZ
1000 x 1000 x 1000 / 800kg	Size (mm) ·Weight	490 x 320 x 920 / 37kg
6.0 g/h (O3)	Amount of ozone gas generated	3.0 g/h (O3)
oxygen concentration 93%±2% @1 L/min(O2-PSA)	Raw material for generating ozone gas	oxygen concentration 93%±2% @1 L/min (O2-PSA)
Max 3 L/min	Ozone gas air volume	Max 3L/min
Approx0.5~1 ppm	Ozone water concentration	Approx0.5~1 ppm
Max 20L/min (Water)	Amount of ozone water generated	Max 7L/min (Water)
AC380V / 50Hz /Three-phase	Power supply specifications	AC220V / 50Hz /Single-phase
Max 3.0kw	Power consumption	Max 0.75kw
Over 200RT	Corresponding cooling tower	Less 200RT
3/4 B	Nozzle size	One touch joint : Tube inline 12mm (in/out)

Company Profile

▶ Company Profile

Company Name	UTS Inc.	Established	May, 2016
Executive Chairman	Kenichi Kobayashi	Capital	¥ 28,000,000
CEO	Kentaro Uchiyama	Employees	5
Director	Kuniyasu Sasaki	Business Partner	Syudensya Co., Ltd/Wonderful Saigon Technology Co., Ltd/Wonderful Saigon Electrics Co., Ltd/WCL Tokyo Co., Ltd/micro-bub. Corporation/HIC Inc./ANES Co., Ltd/NISSHINTOA IWAO CO., LTD/etc.
Head Office	4F Shimbashi Ekimae Bldg.#1 2-20-15 Shimbashi, Minato-ku, Tokyo, Japan		
TEL	03-6264-5135		
FAX	03-6264-5882		
URL	https://www.uts-japan.com		

▶ Business

- Water Treatment Engineering
- Ozone Water System
- Micro-nano bubble System
- Sustainable Agriculture Consulting
- Aquaculture Consulting
- Developing Countries Consulting
- Spread/Sale of Low-power design technology (Bio-Fan)
- Import and Export of the above products

▶ Business Policy

「Ambition・Discover・Co-creation」

Toward the realization of a sustainable society

Aiming for the practical application of universal knowledge that can be used all over the world.

Contact information

UTS Inc.

Address: 4F Shimbashi Ekimae Bldg. #1,2-20-15 Shimbashi, Minato-ku,Tokyo, Japan

Mail: info@uts-japan.com

Tel: +81-3-6264-5135

Person in charge:

Agent:

Address:

Mail:

Tel:

Person in charge:

Maintenance:

Address:

Mail:

Tel:

Person in charge:

