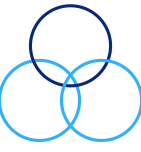


water design japan

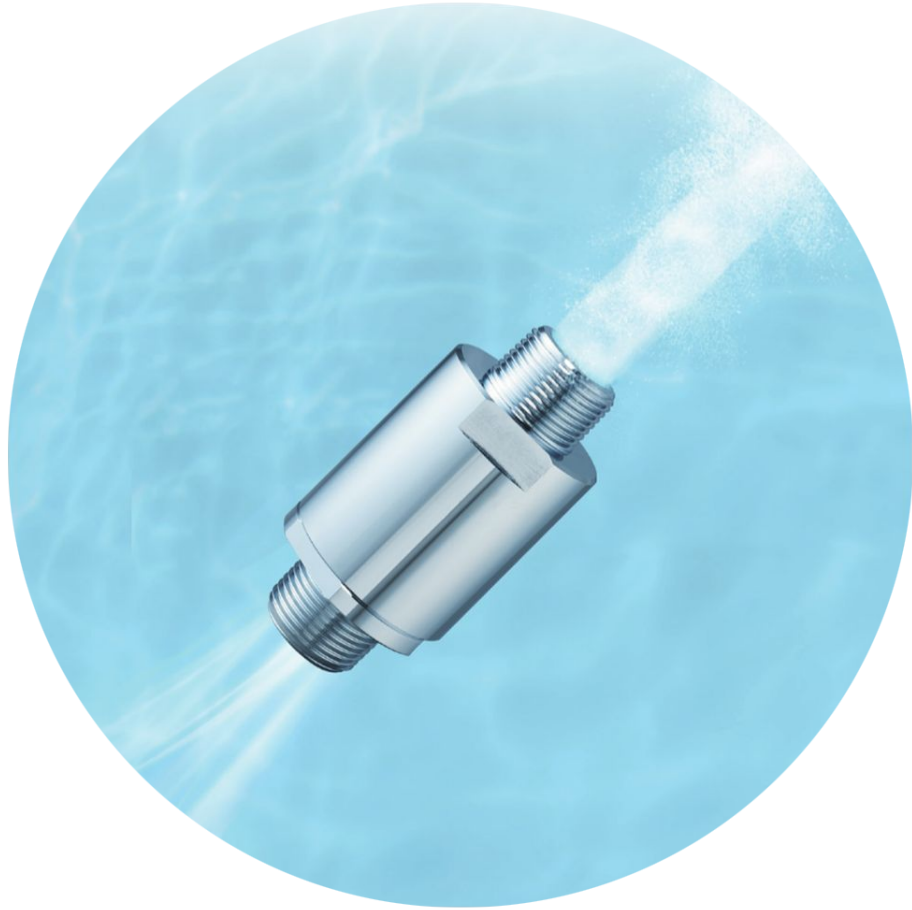
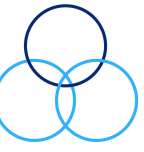
Japan Support System

Problem: clogged pipes lead to cost and quality issues

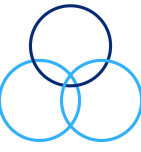


Water Design Japan
addresses the
problem without
chemicals

Restaurants, manufacturing facilities, personal services facilities, and residential properties tackle the problem with expensive and environmentally harmful materials

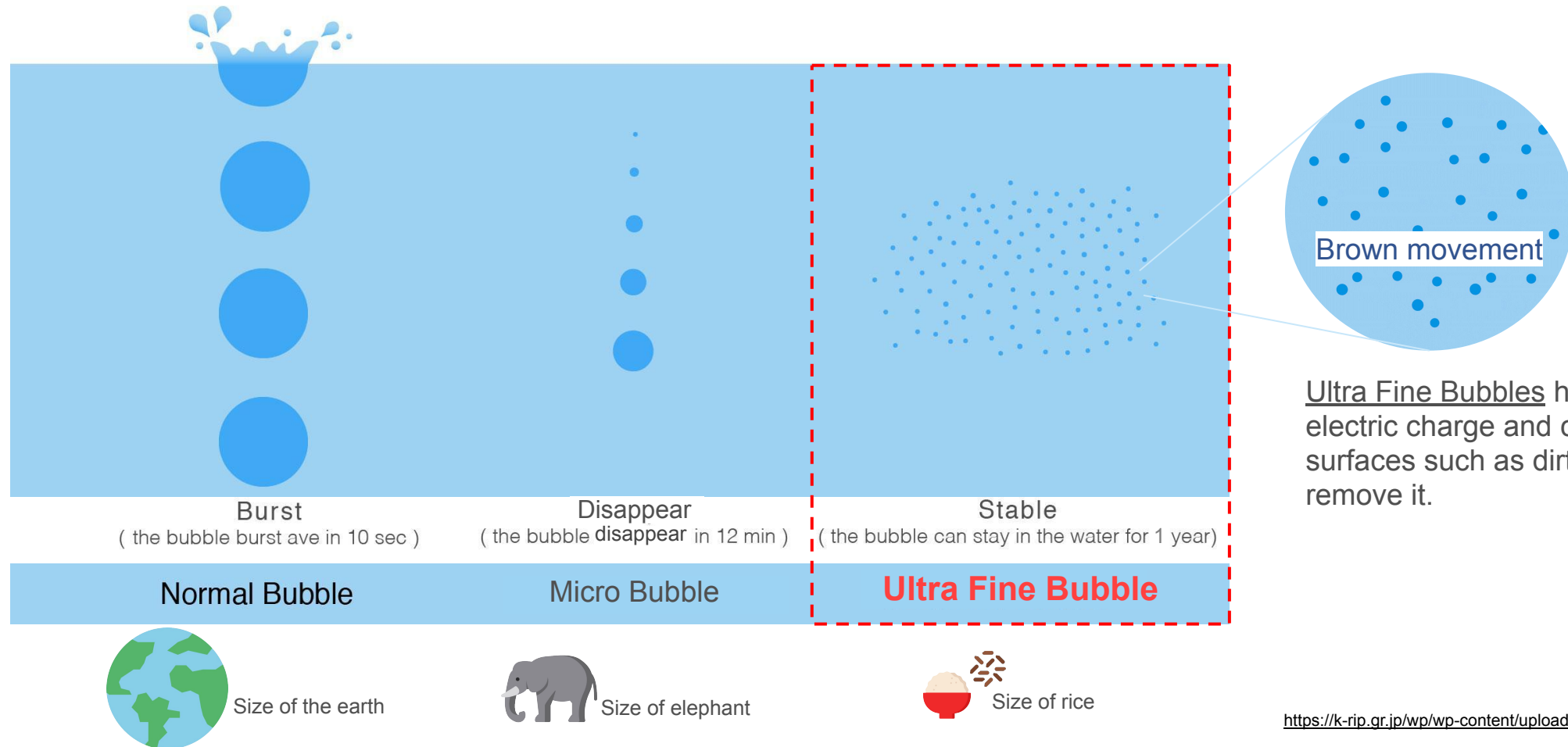


With the world's first
ULTRA FINE BUBBLE
generator nozzle technology -
the solutions are only limited
by the problems

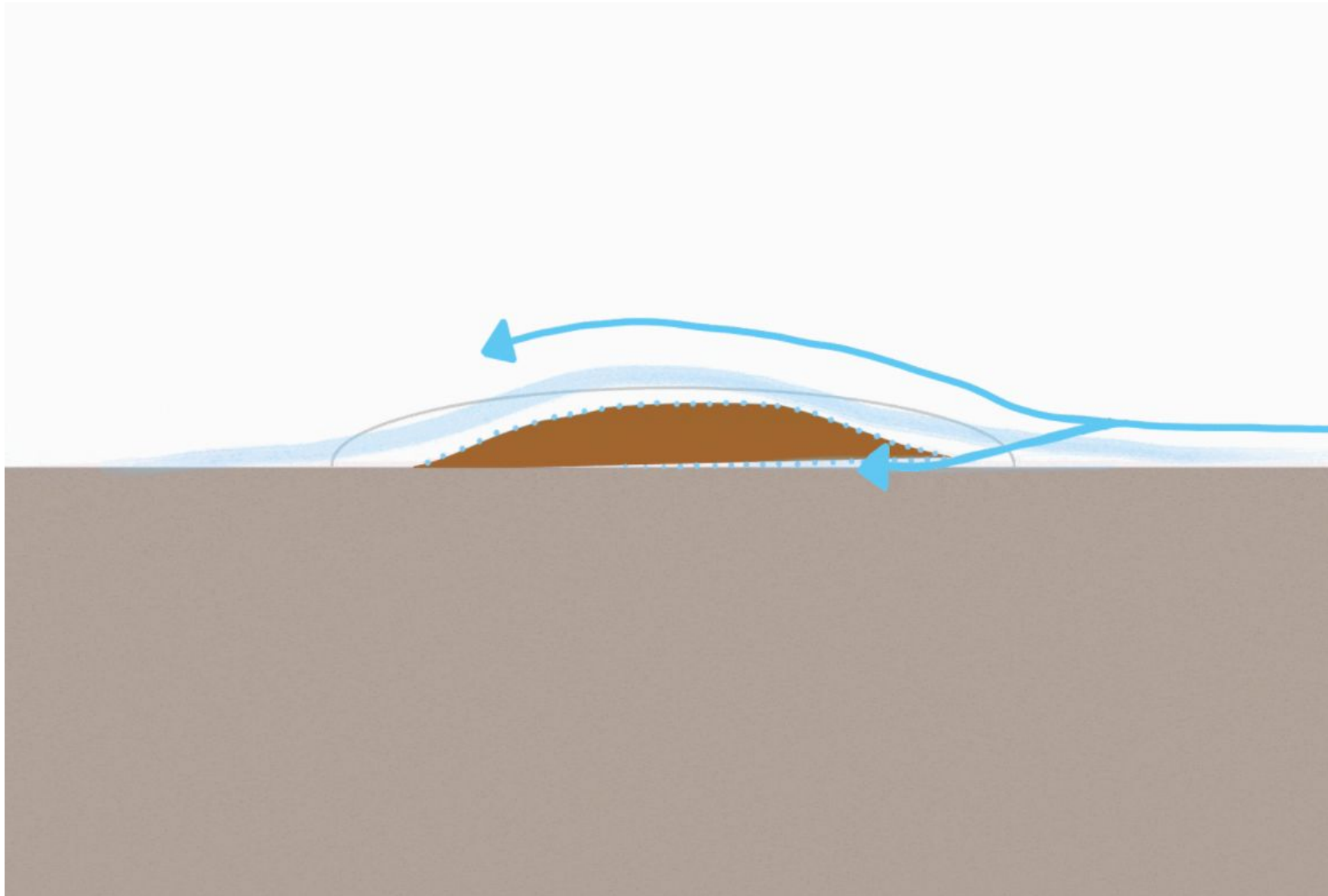
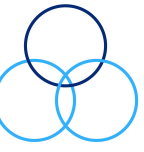


What are Ultra Fine Bubbles

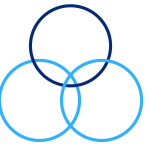
- ① UFB are too fine to see with the naked eyes, **0.000001 mm**.
- ② It can stay in water for a long time



How UFB removes biofilm (slimy dirt)



UFB advantages



Cleansing

Removes stubborn biofilms that develop in of water pipes without the need for harsh and environmentally damaging chemicals



Protects vehicle exteriors

Helps prevent dirt build up and reduces the frequency and effort required for cleaning

The bubbles remain on a surface up to a week



Amplifies benefits

Good for hair and skin

UFB water provides **four** time the level compared to normal water



Gas dissolution

Exceeds standard high concentration of 1,000ppm, by **ten** times. Gases used include CO₂, Oxygen, Hydrogen etc.

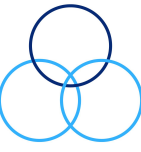
Factory, food-processing factory, manufacturing, beauty products and spa treatments



Growth promotion

Accelerates plant growth
Good for aquaculture as well

Use cases include tomato hydroponics and shrimp aquaculture.



Our product

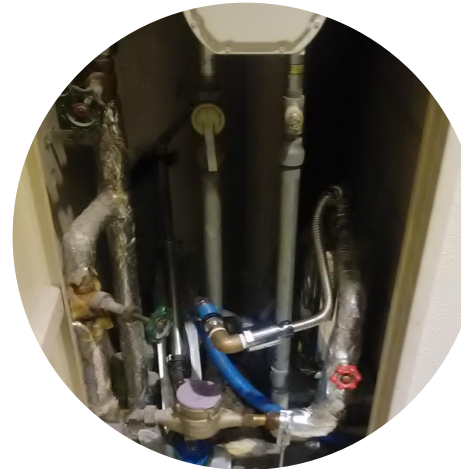
Meet UFB DUAL™

The World's First *Ultra Fine Bubble* Generator Nozzle

(the only nozzle that can be installed inside a standard water pipe)



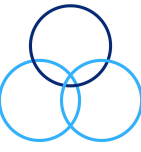
Examples:



Residential use case



Agriculture use case



Cavitation method to generate UFB

The process results in no change to quality, and minimal decline in pressure 0.05MPa (only 4% pressure loss)

Results in no change in water quality, purity, etc.

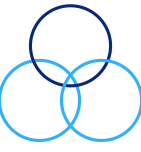


Adds 0.000001mm-sized-bubbles to the water **without**:

- introducing external air or by using an external pump, electricity, or gas
- A substantial decline in water pressure



Product features



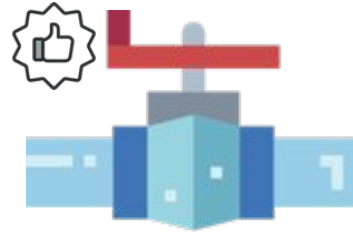
World's first achievement!



**Passed
drinkable water test**



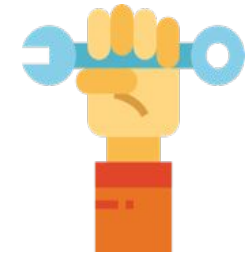
**No external air,
No bacteria**



Installable into pipes



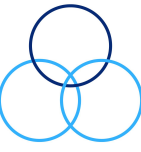
**Almost no water
pressure decline
Only 4% loss (compared
to 40-50% for others)**



**Customizable
in size and material**

Key point No.1

Key point No.2

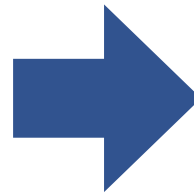


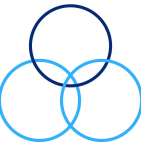
Use case: Bacterial “biofilm” issues

Problem: Biofilm and Legionella

Biofilms generated in spa/bath reheating systems and plumbing can result in microorganisms such as Legionella, requiring environmentally hazardous disinfectants was the only available solutions.

Removes and prevents biofilm reducing maintenance time and cost as less chemicals are required to maintain the desired state. It provides peace of mind as it is passively always working.



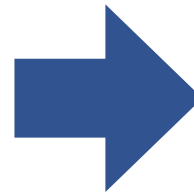


Use case: Hospital's dialysis machine cleaning

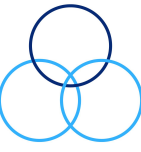
Problem: Scale includes calcium clog

In order to clean the scale, dialysis hospitals use strong chemical for its cleaning. It is expensive and harmful for the environment, causes of deterioration of sewage piping.

Successfully
reduced the cost by about 60%
using less chemicals.



Published at Japanese Society for Dialysis Therapy in 2019
<http://www.congre.co.jp/64jsdt/en/index.html>

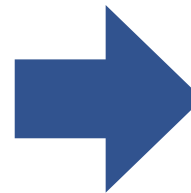
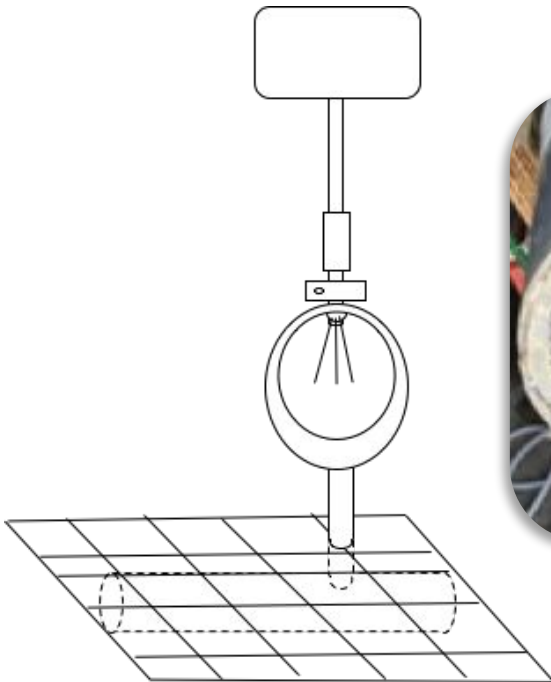


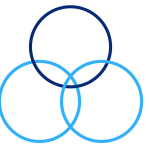
Use Case: Station toilet

Problem: Urinary stone build up inside pipes

Build up of urinary stone causes foul odors in public toilets and removal can be a challenge. Build up also reduces water flow in the pipes causing loss of function and resulting in expensive plumbing retrofits or use of environmentally damaging, caustic chemicals

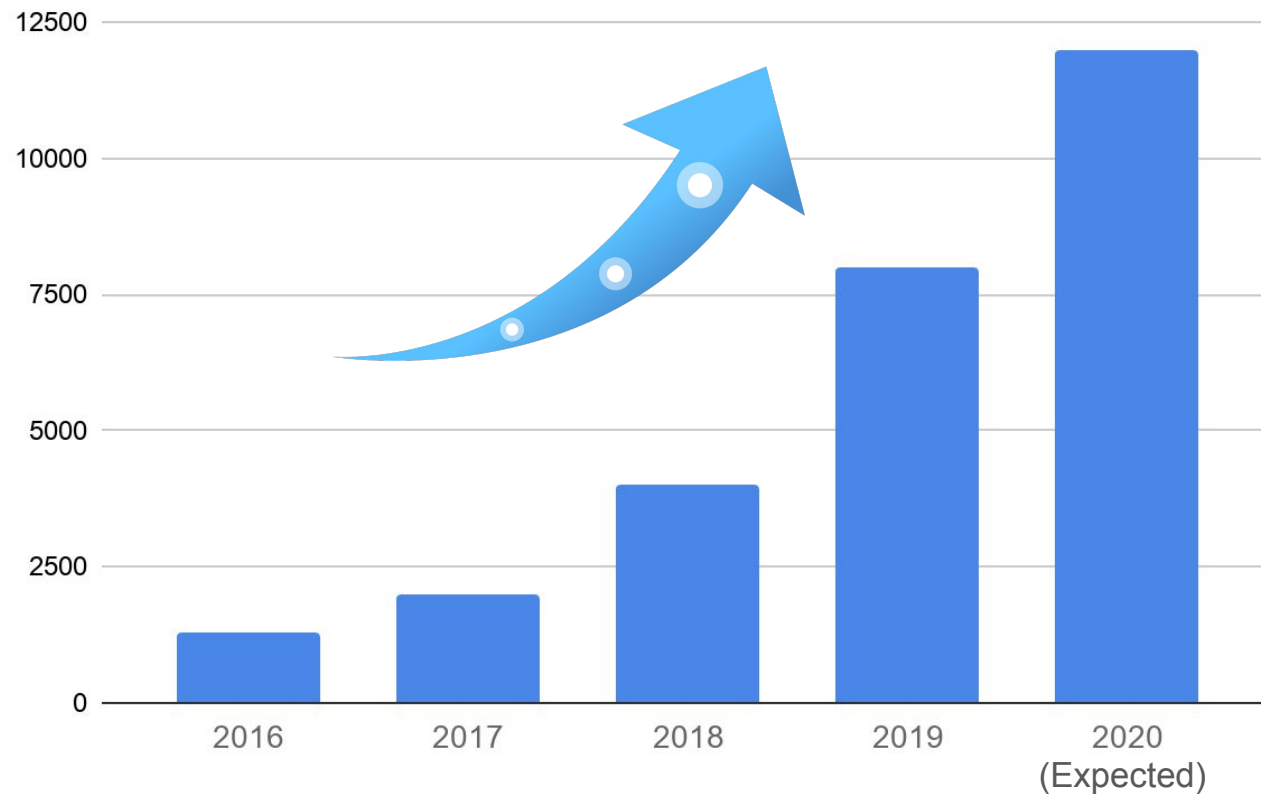
Just running UFB treated water for 100 hours
removed urinary stone without chemicals or new pipes.



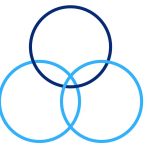


Past Traction / Achievement

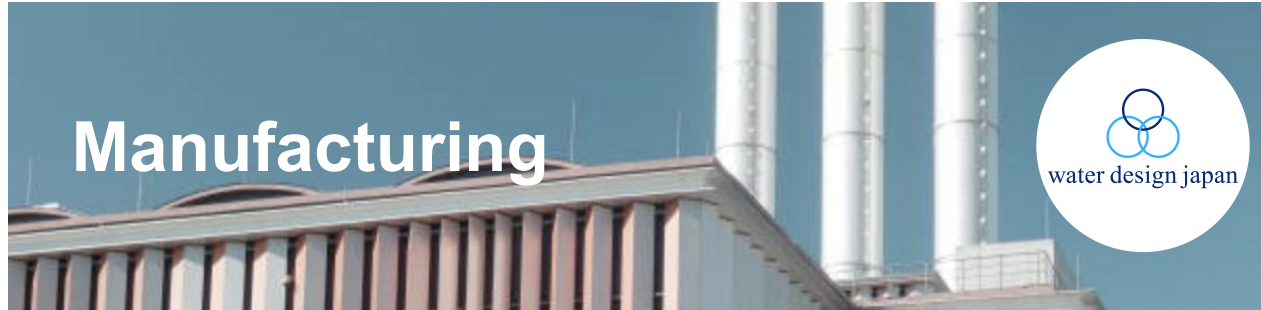
- Despite no marketing, we've shipped over **5,000 units** to satisfied users
- Bootstrap (Expected \$1M revenue in 2021)



Current growth in Japan



Ongoing POCs



Ongoing partnership / POCs

AsahiKASEI
旭化成ホームズ

 **SHIMADZU**

 **Sumitomo Corporation**



1 NDA, 2 POC
Several on-going

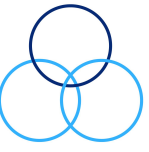
Tier1 house maker company



1 NDA, 1 POC

Tier1 energy company

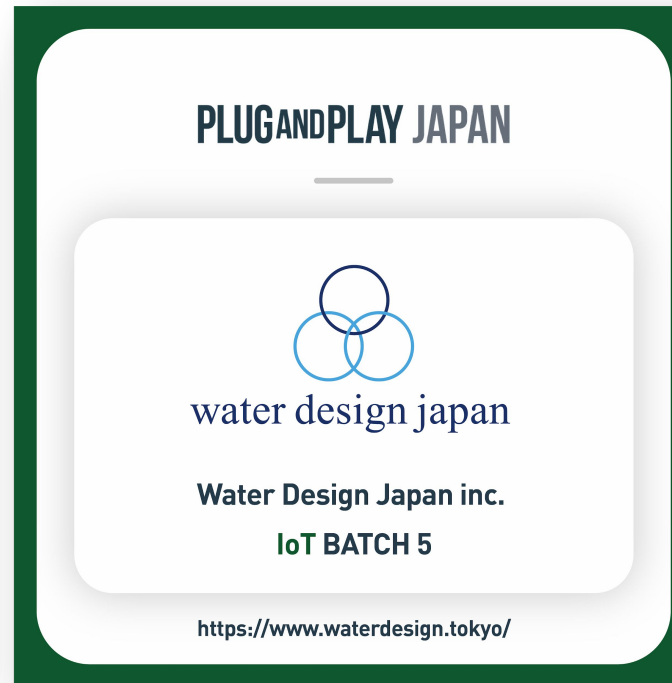
Past Traction / Achievement - 2



Winner/Suntory Special awarded
at the Startup World Cup 2020.



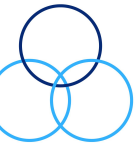
<https://www.startupworldcup.io/>



Winner Monozukuri Hardware Cup 2021.
Attend Hardware Cup in the US in May.



Selected startup of Plug and Play's
accelerator program as IoT section in 2020



“Tiny bubbles to enrich our lives”



Thank you!

masumi@jssltd.co.jp
090-8596-9446

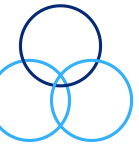


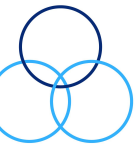
6-67-22 Shirane Asahi-ku Yokohama
www.jssltd.co.jp



Winner of Startup World Cup 2020 Osaka
Selected startup from Plug and Play IoT







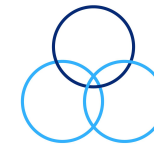
Drain pipe

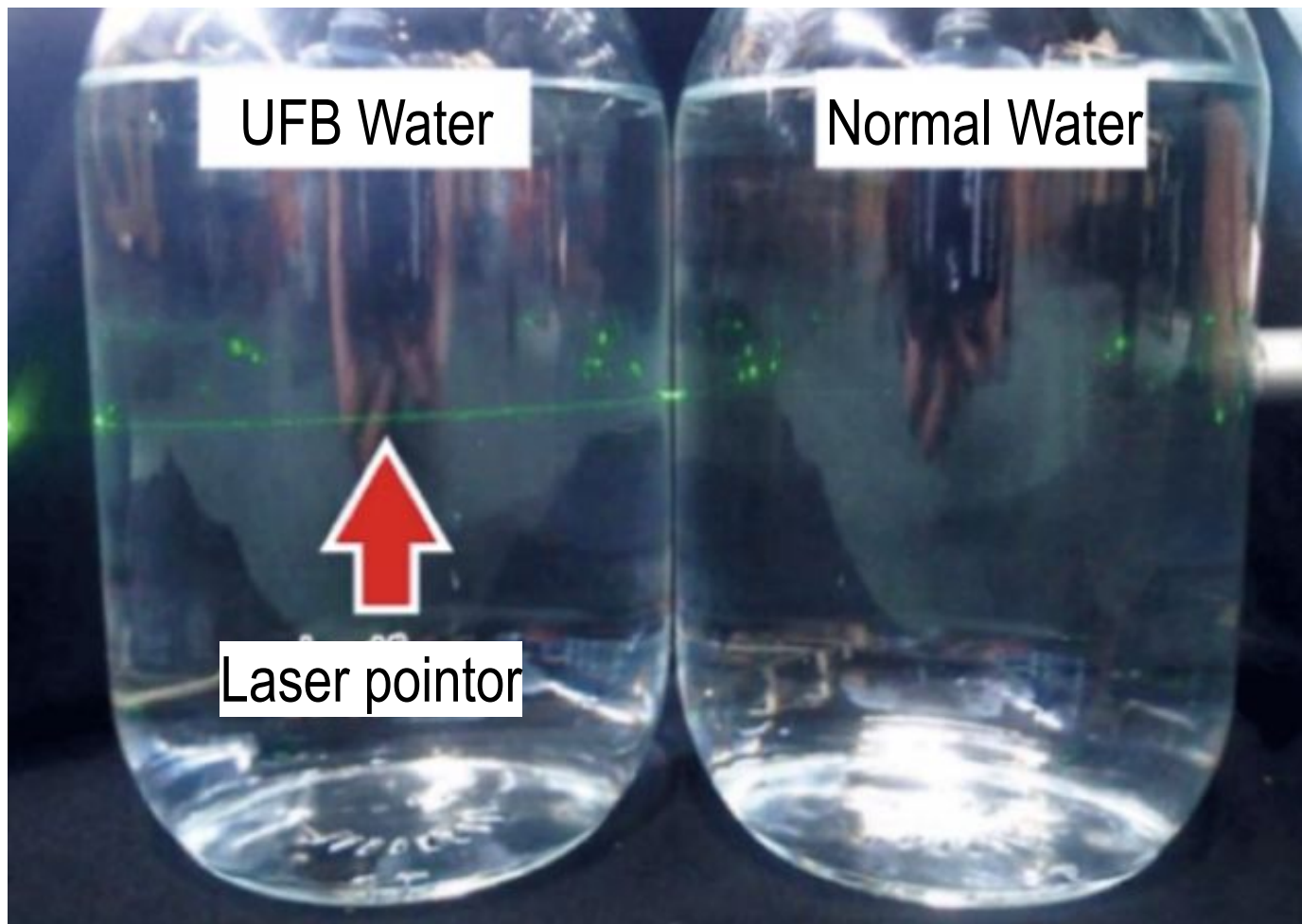
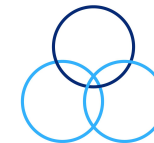


Before

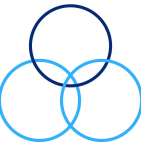


After



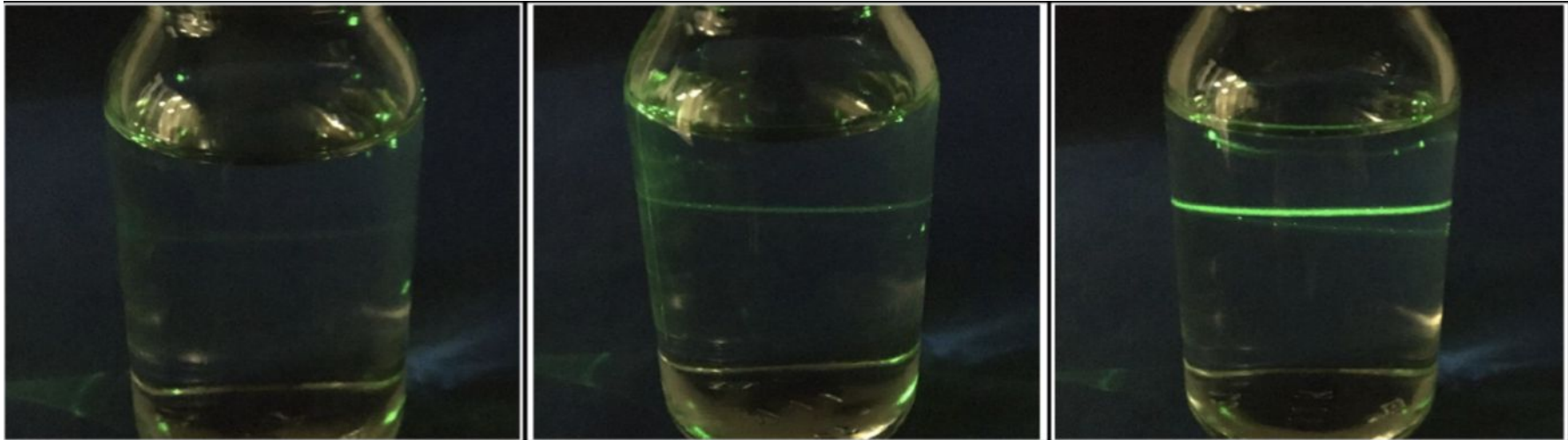


It has to be 100% purified water, no tap water.
Laser light is reflected on the bubbles to form lines

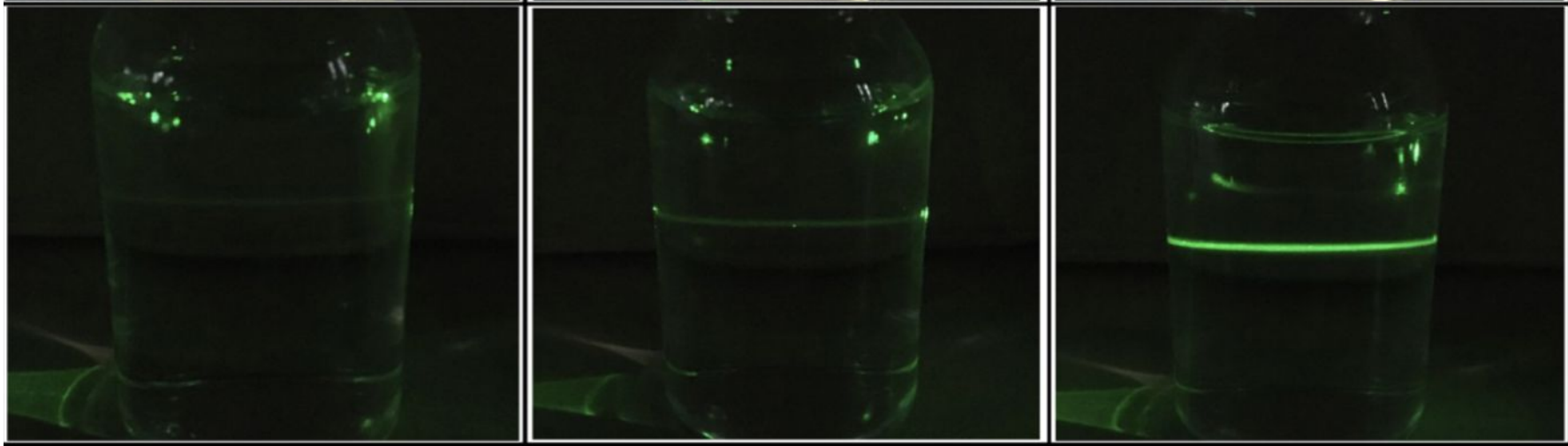


How long UFB will stay? | Ion-exchanged water

Right
after



After
2weeks

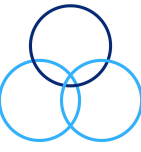


1 pass

1 circulation

20min circulation

Positioning analysis



	UFB DUAL	Toshiba	MTG	Science
Type	Nozzle	Laundry machine	Showerhead	Bathub
# of bubble (in 1cc)	50,000,000	10,000,000	39,500,000	12,000
Generate UFB	✓	✓	△	—
No power	✓	—	✓	—
No water pressure decline	✓	△	—	△
Safety	✓	—	—	—
Maintenance	✓	—	△	—