DYNAMIC WATER
TECHNOLOGIES, LLC

NORTH AMERICAN   UET   EXCLUSIVE PARTNER

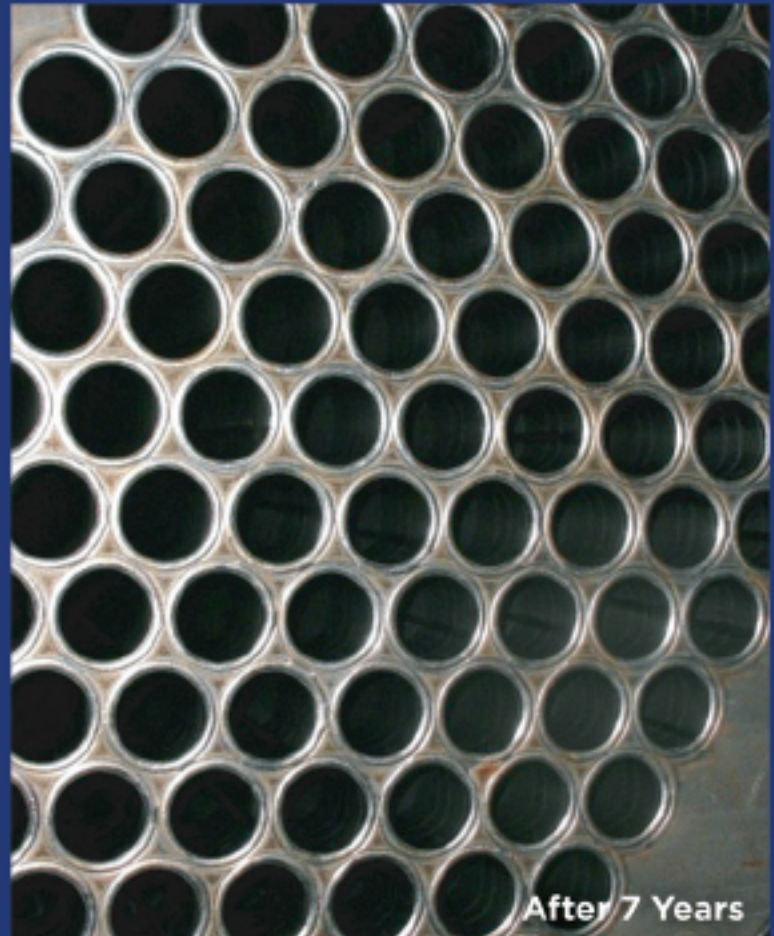NATURALLY TREATING WATER

PROVEN
SINCE 1992
TECHNOLOGY

Innovative Commercial & Industrial Water Process Treatment

OVER 5,000
INSTALLATIONS WORLDWIDE

After 5 Months

After 7 Years

PROVEN RESULTS

Military aerospace facility in California, installed in 2017.

The facility struggled to manage their bio-contamination load and had significant scaling which frequently fouled their tower and chiller surfaces. After installing UET, the blowdown setpoint was increased from 2,500 to 6,500 µS/cm which saves the facility 30% of their blowdown water (increasing cycles from 2.5 to 10 cycles). The chiller was not cleaned prior to UET installation. After 5 months of treatment, bio-growth and scaling under control (see above photo). The client requested installations in all towers at this facility.

Makeup Water:
Conductivity 670 µS/cm
Calcium Hardness 230 ppm

DynamicWater.com

Siemens powerplant in partnership with government entity in Soleval, Spain. System has been active since 2010.

Instead of 2-2.5 cycles, the plant runs at 6 cycles of concentration with reclaimed agricultural water. Client estimates over 65,000,000 gallons of water saved annually. In 2015, the client removed 1.8 tons of scale through UET reactors.

Makeup Water:
Conductivity 1,100 µS/cm
Calcium Hardness 135 ppm
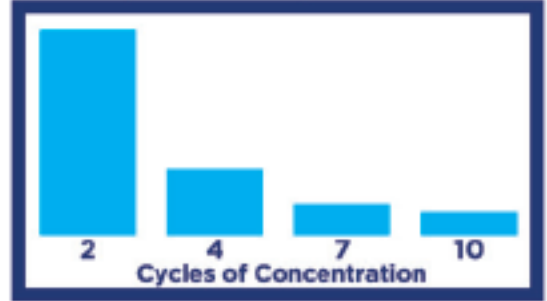
UET.co.il

WHAT IF YOU COULD DRAMATICALLY...

REDUCE SCALE

BEFORE   AFTER 3 MONTHS

BEFORE   AFTER 4 MONTHS
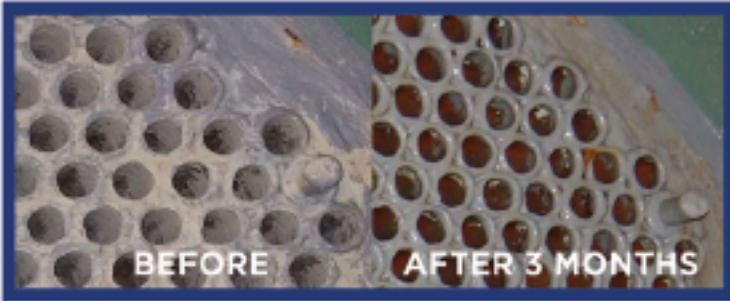
DECREASE ANNUAL
MAINTENANCE COSTS & TIME

REDUCE WATER
USE (10-40%)

Cycles of Concentration

REDUCE
CORROSION

REDUCE SAFETY CONCERNS
BY ELIMINATING HAZARDOUS CHEMICALS

TREAT BIOLOGICS
BY ELECTRO-CHEMICAL PROCESS

BEFORE   AFTER

EXTEND THE USEFUL LIFE OF YOUR EQUIPMENT

DynamicWater.com

WE WORK WITH NATURE RATHER THAN AGAINST IT.

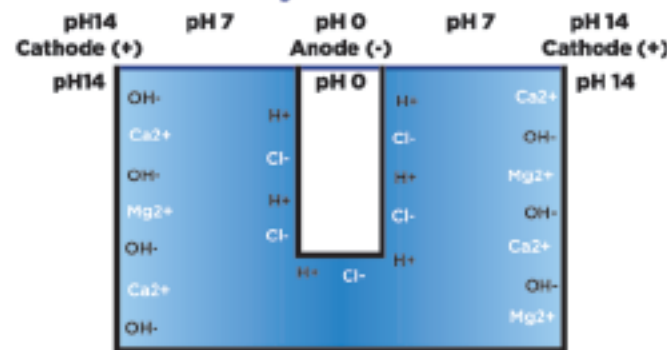**1** The three most important factors to manage in process water are:
- Scale
- Corrosion
- Bio-Contamination

2 The Dynamic Water UET reactors remove the unstable minerals in water to allow for high cycle rates with reduced scale formations in your towers or heat exchangers. This increases efficiency and extends equipment life.
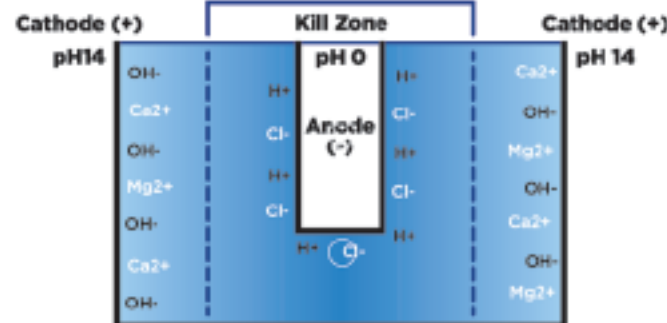
3 The UET process operates at a high pH (8.5-9.0) which protects your equipment against corrosion. Using partial electrolysis, the reactors generate biocides from the natural chlorides in the water providing superior biocide protection against legionella and other bio-contaminants as 70% of the water passes thru a pH of under 7 each time through the reactors.
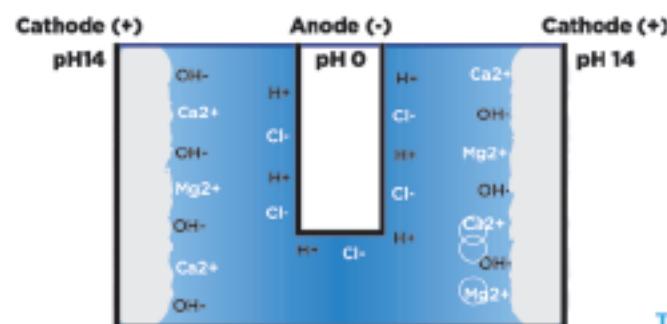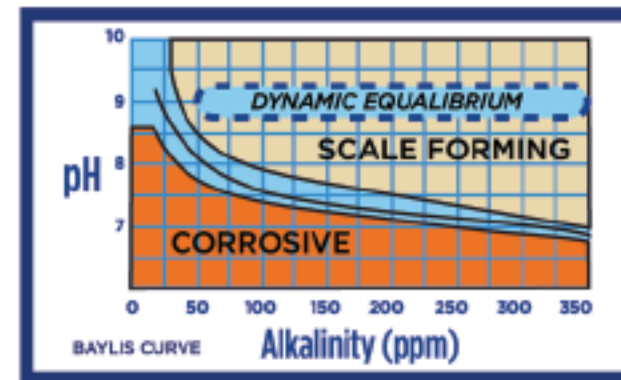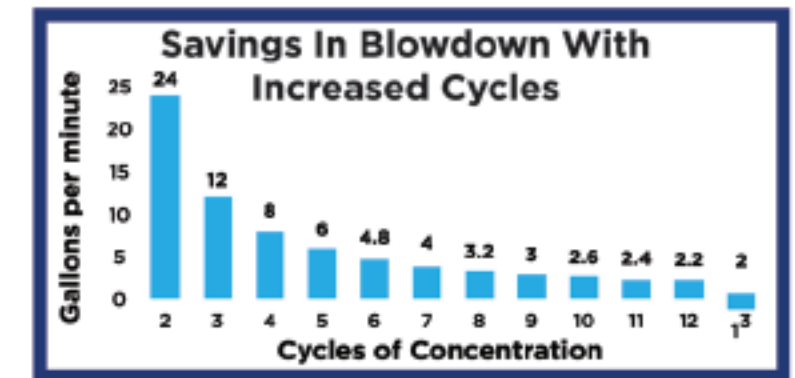
Electrolysis in Reactor

pH14 Cathode (+) | pH 7 | pH 0 Anode (-) | pH 7 | pH 14 Cathode (+)

Aggregation of Ions

Kill Zone — Anode (-)

Scale Forms and Chlorine is Activated

Sidestream return to the basin

System analyzes & adjusts every 6 miliseconds

Sidestream Reactors

Sidestream pulls from basin

Recirculation Pump

4 The resultant water is what we call "Dynamic Equilibrium" - a scale forming composition of water without the ability to scale. Due to a pH of 9, the water is not corrosive (see Baylis Curve below).

DYNAMIC EQUILIBRIUM
SCALE FORMING
CORROSIVE
pH — Alkalinity (ppm)
BAYLIS CURVE

5 Our patented technology allows us to increase cycles dramatically, saving you water.

Savings In Blowdown With Increased Cycles

Gallons per minute — Cycles of Concentration

24, 12, 8, 6, 4.8, 4, 3.2, 3, 2.6, 2.4, 2.2, 2

6 WITH REMOVAL OF SCALE, YOUR TOWER BECOMES MORE EFFICIENT, SAVING YOU ENERGY

Equipment	KW/Ton	Load Factor	Operating Hours	Energy Cost per kWh	Cost with Scale	Cost without Scale	Savings
500 tons	0.65	100%	250 Days or 6000 Hours	$0.08	$198,120.00	$156,000.00	$42,120.00

1/32" OF SCALE IN YOUR CHILLER CAN COST YOU APPROXIMATELY 27% OF YOUR ENERGY COSTS

Improves mechanical system performance

Source: CEDengineering.com Course MO5-013

7 Our monitoring controller, equipped with corrators, gives conductivity, ORP, pH, and corrosion rates in real-time. Alerting both our companies of out of parameter conditions.

THE UET REACTOR SYSTEM DOES ALL OF THE ABOVE WITHOUT ANY ADDED CHEMICALS. OUR ELECTROCHEMICAL PROCESS GENERATES EVERYTHING WE NEED FROM NATURE.

UET.co.il

OPTIMIZING COOLING TOWER EFFICIENCIES IN ALL INDUSTRIES

Pharmaceuticals & High Tech Manufacturing

Dairy & Other Food Production

High Rise Offices & Condominiums

Refineries

Data Centers

Mining

Resorts & Casinos

Hospitals

Power Plants