Better HVAC and Domestic Water Treatment Solutions

PRESENTED BY:

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EASYWATER

EasyWater

Founded 1986

We design, develop and manufacture water treatment solutions for plumbing and mechanical applications

EASYWATER

Domestic Water and HVAC Water Treatment Industry

- **Domestic Water Treatment**: water softeners, reverse osmosis systems
    - Culligan, Marlo, Kinetico
- **High Purity & Ultra High Purity:** RO, DI, EDI
    - Evoqua
- **Cooling Towers, Closed Loops & Boilers**:
    - Nalco, ChemTreat
- **Filtration - HVAC & Domestic**: separators, sand filters, bag/cartridge filters
    - Lakos, Puroflux, Amiad

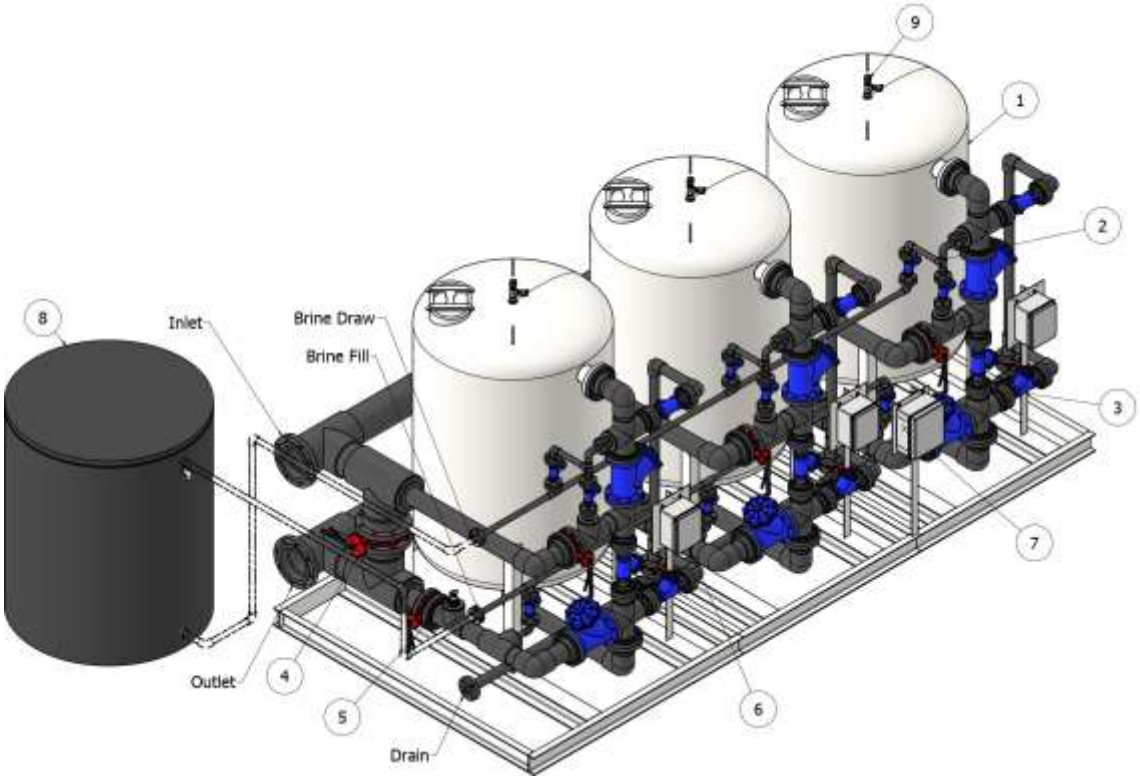
EasyWater Can Provide Excellent Water Treatment Solutions In All Categories

- **Domestic Water Treatment:**
  - Softeners, No Salt Conditioners, DWP, Problem Water Treatment
- **High Purity & Ultra High Purity:**
  - SmartGuard RO
- **Cooling Towers & Closed Loops:**
  - CTF Treatment System, Series C System
- **Filtration - HVAC & Domestic:**
  - SedimentShield backwashing sub-micron filter
  - ToxinShield, LeadShield, IronShield, AcidShield…

Better Domestic Water Treatment

SimplySoft™ Ion Exchange Water Softening

Skid Mounted



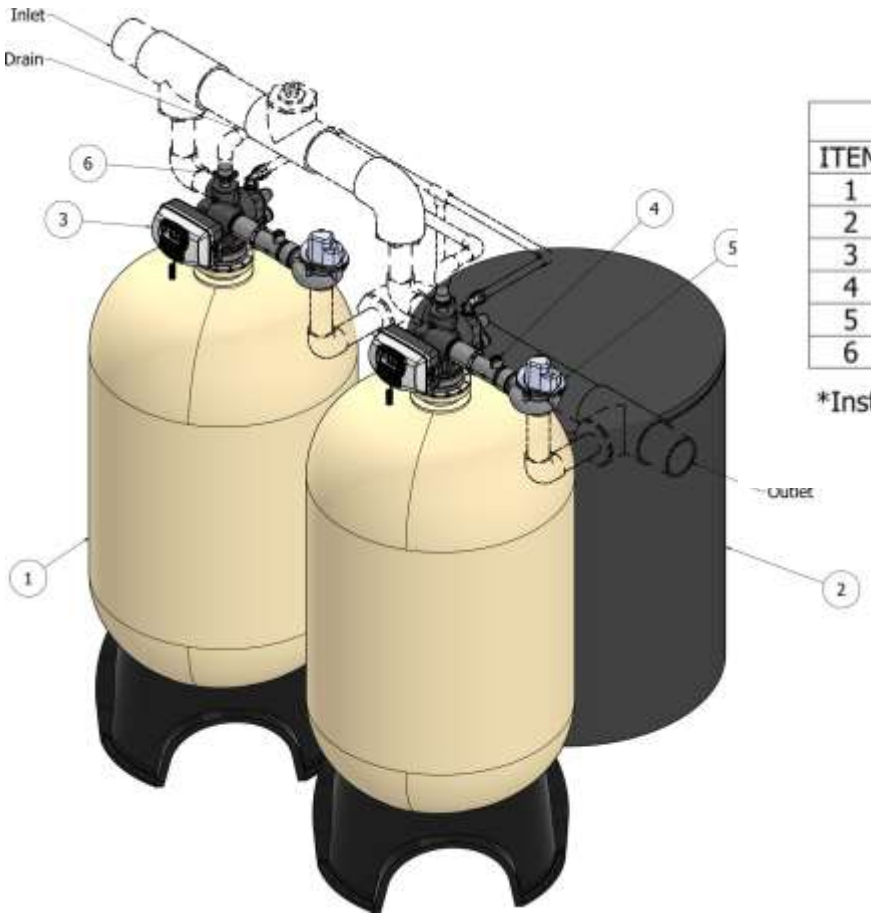
PARTS LIST		
ITEM	QTY	DESCRIPTION
1	3	SimplySoft Backwashing Filtration Tank (48"x 60")
2	3	Brine Injector
3	9	Diaphragm Valve
4	6	Shut-Off Valve
5	3	Flow Meter
6	3	Stager Control Panel
7	1	Power Disconnect
8	1	Brine Tank (50"x 60")
9	3	Tank Vent

Installation piping (shown in broken lines) provided by others

SimplySoft™

EASYWATER®

Components Only – Field Assembled



PARTS LIST		
ITEM	QTY	DESCRIPTION
1	2	SimplySoft Backwashing Filtration Tank (42"x 72")
2	1	Brine Tank (50"x 60")
3	2	Backwashing Control Valve
4	2	Flow Meter
5	2	No Hard Water Bypass
6	2	Drain Line Flow Control

Installation piping (shown in broken lines) provided by others

SimplySoft™

EASYWATER®

No-Salt Conditioner®

No-Salt Conditioner®

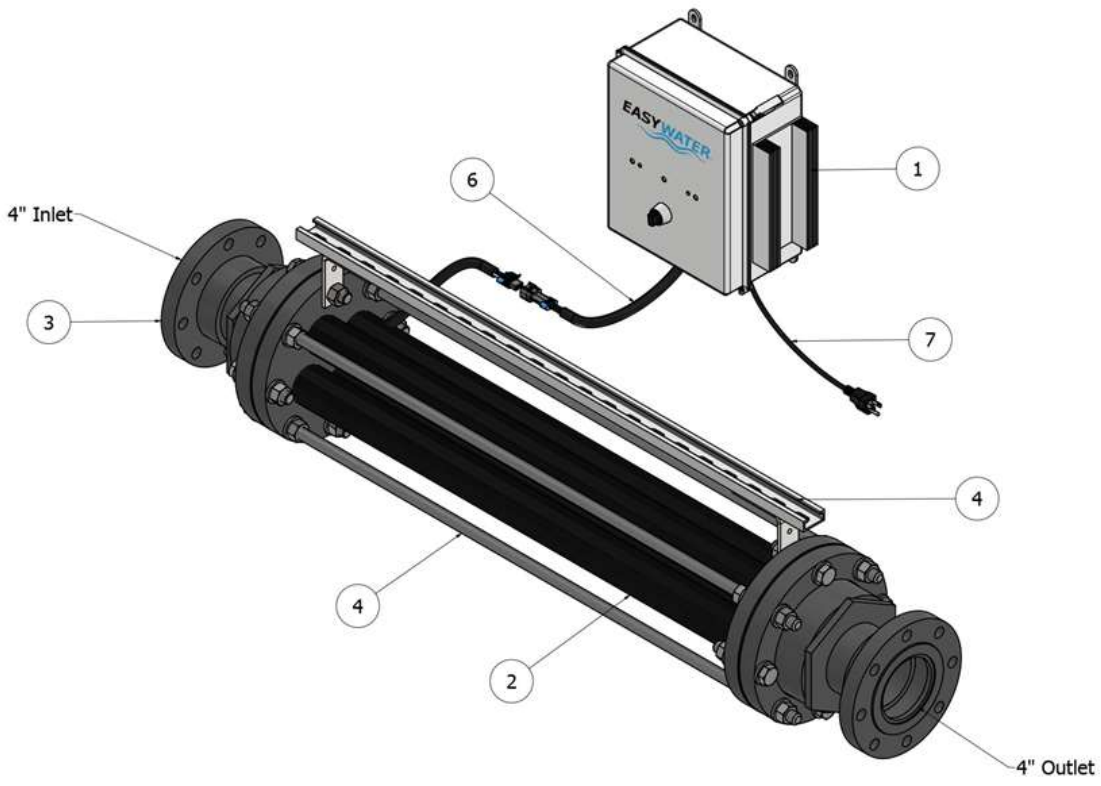
Physical water treatment to prevent/remove scale and biofilm

EASYWATER

No-Salt Conditioner®

- A Key Technology in treating
  - Cooling Towers
  - Closed Loop Systems
  - Certain domestic water applications

No-Salt Conditioner®



- Uses electronic frequencies to physically change the minerals in water
- Unlike an ion exchange softener, it does not chemically change the water

No-Salt Conditioner®

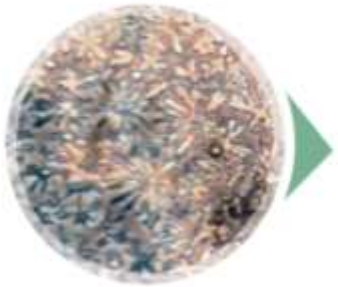
How the No-Salt Conditioner Prevents and Removes Scale:

UNTREATED MINERALS

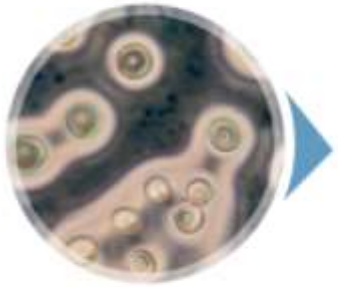
- As water sees a change in temperature, pressure or turbulence, some of the minerals fall out of solution and are floating or suspended in the water.
- The untreated minerals look like tree branches and have an electrostatic charge (like static electricity) on their surface, causing them to stick to the inside of water-using equipment and form scale deposits.

TREATED MINERALS

- No-Salt Conditioner treatment causes the tree branch shaped minerals to cling to each other and form disc-shaped minerals, and as a result, they lose the electrostatic charge and their ability to stick.
- When the tree branch-shaped minerals cling to each other and form these discs, it creates more capacity or "room" in the water to dissolve mineral and slowly remove existing scale deposits.



Microscopic view of
UNTREATED
hard water with sticky tree branch-like shape

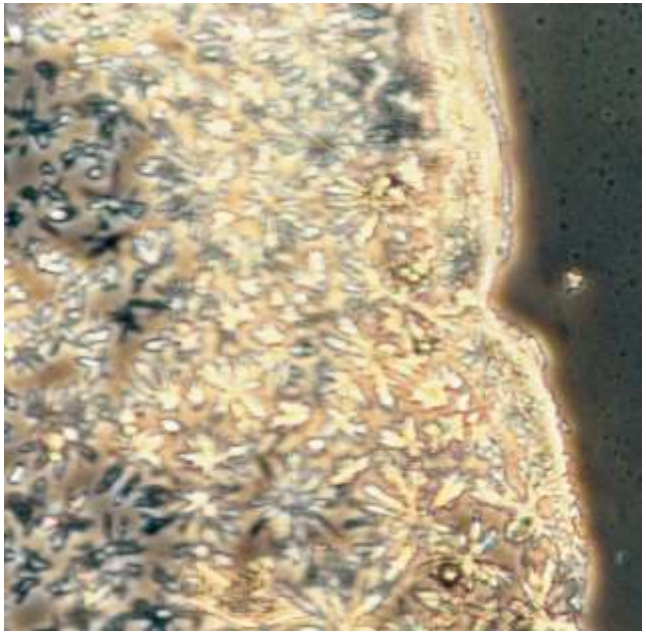


Microscopic view of
TREATED
hard water with disc-like shape

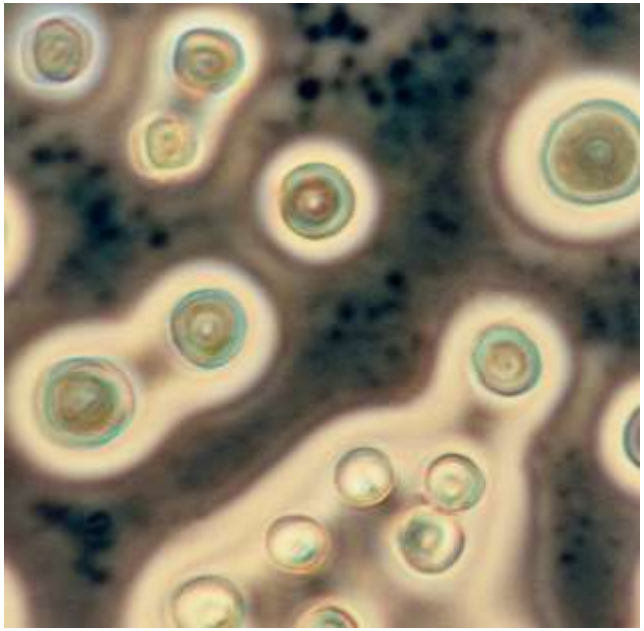
EASYWATER®

No-Salt Conditioner®

Dried droplet of untreated Indianapolis water under microscope (untouched photo)



Dried droplet of EasyWater No-Salt Conditioner treated Indianapolis water under microscope (untouched photo)



EASYWATER®

Before EasyWater No-Salt Conditioners Bldg. L at Miami Correctional Facility (23 grains hard)

After 30 Days of EasyWater No-Salt Conditioners Bldg. L at Miami Correctional Facility

After 90 Days of EasyWater No-Salt Conditioners Bldg. L at Miami Correctional Facility

From: Waggoner, David [mailto:DWaggoner@idoc.IN.gov]
Sent: Wednesday, June 24, 2015 10:38 AM
To: bfreije@easywater.com
Cc: Cooper, Willis (Gene)
Subject: LHU

This is from L housing unit. It has the Easywater system installed. The exchanger was clean as was the tank. I could not even feel any calcium build up with my hands. It was as clean as the day it was installed.

David Waggoner
Maintenance Supervisor
Miami Correctional Facility
Phone: 765-689-8920 ext.5393
Fax: 765-689-7492
dwaggoner@idoc.in.gov

Before EasyWater No-Salt Conditioners Dorm 4 Rockville Correctional Facility (22 grains hard)

After 30 Days of EasyWater No-Salt Conditioners Dorm 4 at Rockville Correctional Facility

After 100 Days of EasyWater No-Salt Conditioners Dorm 4 at Rockville Correctional Facility (about 90% clean)

No-Salt Conditioner®

Iowa State University

6-Month Domestic Water Steam Heat Exchanger Test Results

BEFORE: 6 Months without EasyWater Treatment

AFTER: 6 Months with EasyWater Treatment

EASYWATER®

Combining SimplySoft and No-Salt Conditioner Treatment in Domestic Water Systems

More Options - Depending On Water Quality and Water Using Equipment

- No domestic water treatment needed
- Soften hot only
- Soften hot and cold
- No-Salt Conditioners only
- Combination of softeners and No-Salt Conditioners

SimplySoft™

NO-SALT CONDITIONER

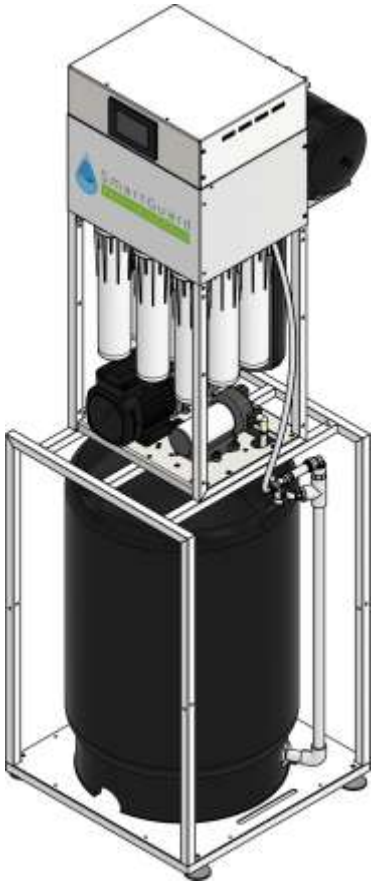
EASYWATER

SmartGuard® RO System

SmartGuard® RO Treatment System

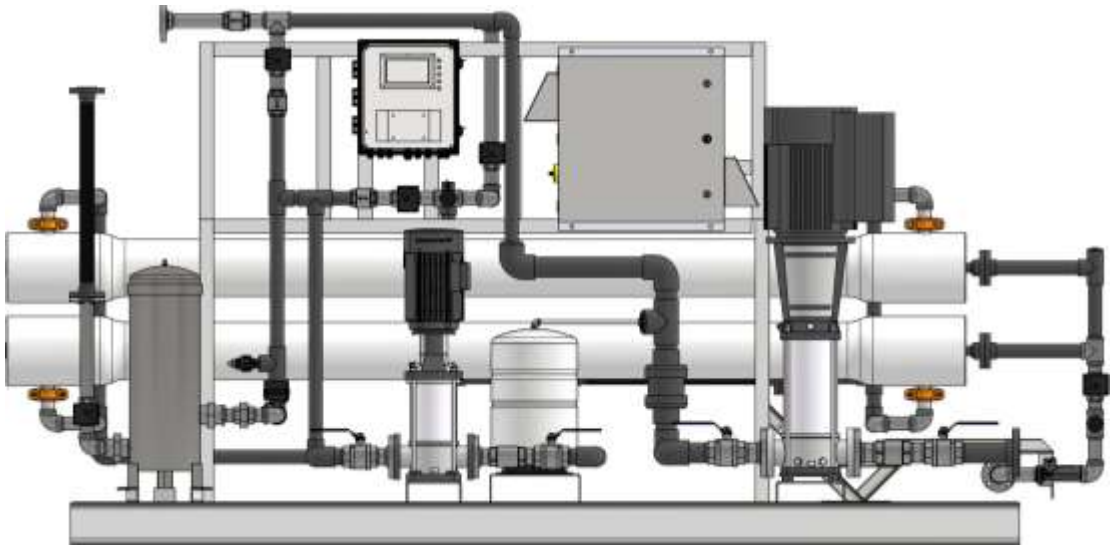
SmartGuard™
Reverse Osmosis

Sizes from .3 gpm to 540 gpm



EASYWATER®

SmartGuard® RO Treatment System



SmartGuard
Reverse Osmosis

SmartGuard® is the only RO System that does not require softener or chemical pre-treatment

EASYWATER

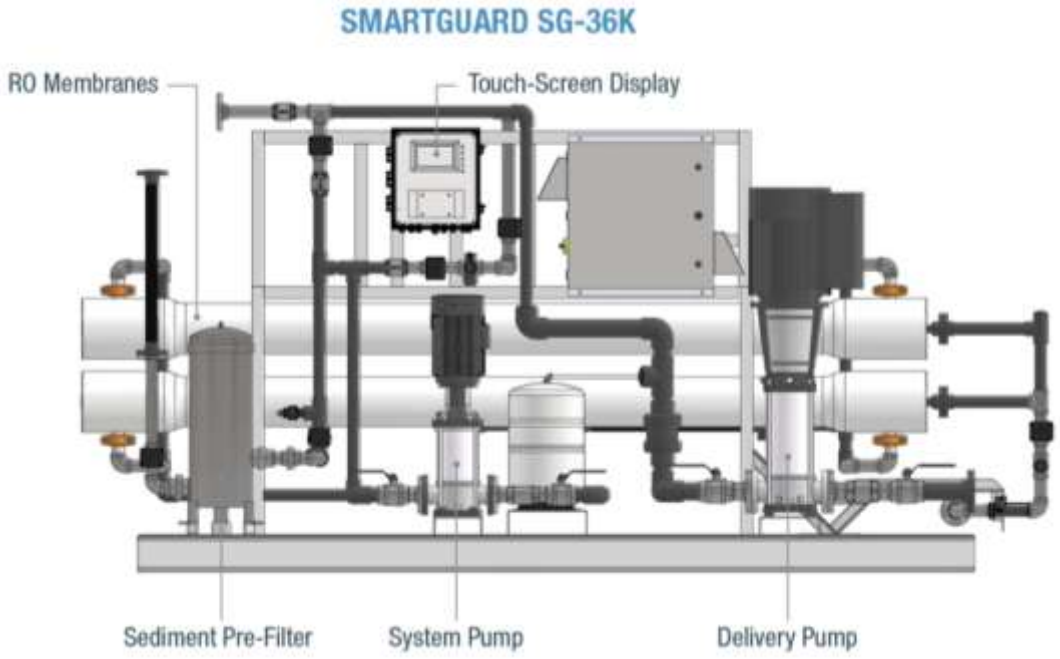
SmartGuard® RO Treatment System
Continuous Reporting From On-Board Microprocessor

SmartGuard® RO Treatment System
Continuous Reporting From On-Board Microprocessor

EASYWATER

SmartGuard® RO Treatment System

SmartGuard
Reverse Osmosis



Model #[1]	Nominal GPD Sizing[2]	Permeate GPM Max[3]	Membrane Sizes & Array
SG-500	500	.3	3 - 3" x 10"
SG-1000	1,000	.6	3 - 3" x 15"
SG-2000	2,000	1.25	1 - 4" x 40"
SG-4000	4,000	2.5	2 - 4" x 40"
SG-6000	6,000	3.75	3 - 4" x 40"
SG-8000	8,000	5	4 - 4" x 40"
SG-12K	12,000	7.5	6 - 4" x 40"
SG-18K	18,000	11	3 - 8" x 40"
SG-24K	24,000	15	4 - 8" x 40"
SG-36K	36,000	22	6 - 8" x 40"
SG-48K	48,000	30	8 - 8" x 40"
SG-72K	72,000	45	12 - 8" x 40"
SG-96K	96,000	60	16 - 8" x 40"
SG-144K	144,000	90	24 - 8" x 40"
SG-192K	192,000	120	32 - 8" x 40"
SG-240K	240,000	150	40 - 8" x 40"
SG-288K	288,000	180	48 - 8" x 40"
SG-336K	336,000	210	56 - 8" x 40"
SG-384K	384,000	240	64 - 8" x 40"
SG-432K	432,000	270	72 - 8" x 40"
SG-864K	864,000	540	144 - 8" x 40"

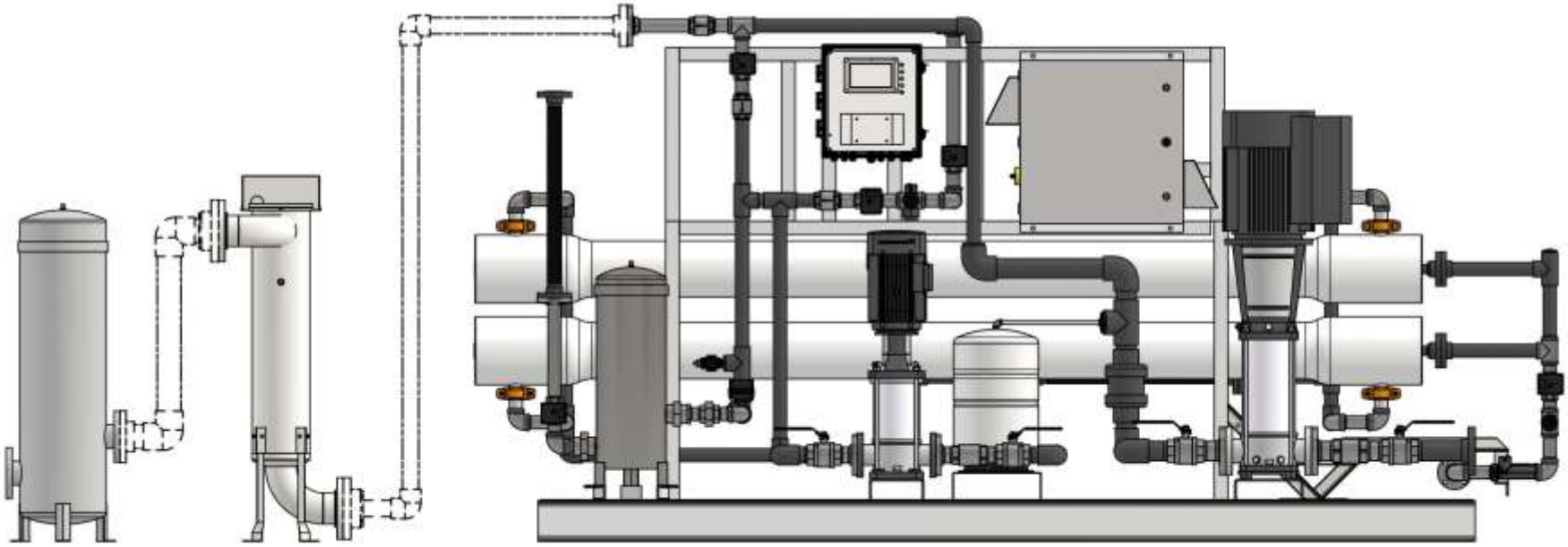
EASYWATER

Post RO Treatment

- Sub-micron filtration
- UV
- Mixed bed DI tanks
- EDI

CONDUCTIVITY (MICROSIEMENS/CM2)	RESISTIVITY (MEGOHM/CM2)
0.056	18
0.063	16
0.071	14
0.083	12
0.100	10
0.133	7.5
0.200	5
0.500	2
1.000	1
1.333	0.75
2.00	0.5
4.00	0.25
10.00	0.1
20.00	0.05
40.00	0.025
80.00	0.013
100.00	0.01
200.00	0.005
500.00	0.002
1000.00	0.001
2000.00	0.0005
5000.00	0.0002
10000.00	0.0001

SmartGuard® SG-36K with Post UV and Filtration



EASYWATER®

SmartGuard® SG-15K with Post UV and Filtration

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EasyWater® DWP Domestic Water Protection System

DWP System – Domestic Water Legionella Treatment

- Legionella enters the domestic water system with the city water entering the facility

- It becomes a threat as it hides and multiplies in the scale and biofilm throughout the domestic hot and cold water system

DWP System
DOMESTIC WATER PROTECTION SYSTEM

EASYWATER

Effective Domestic Water Legionella Treatment

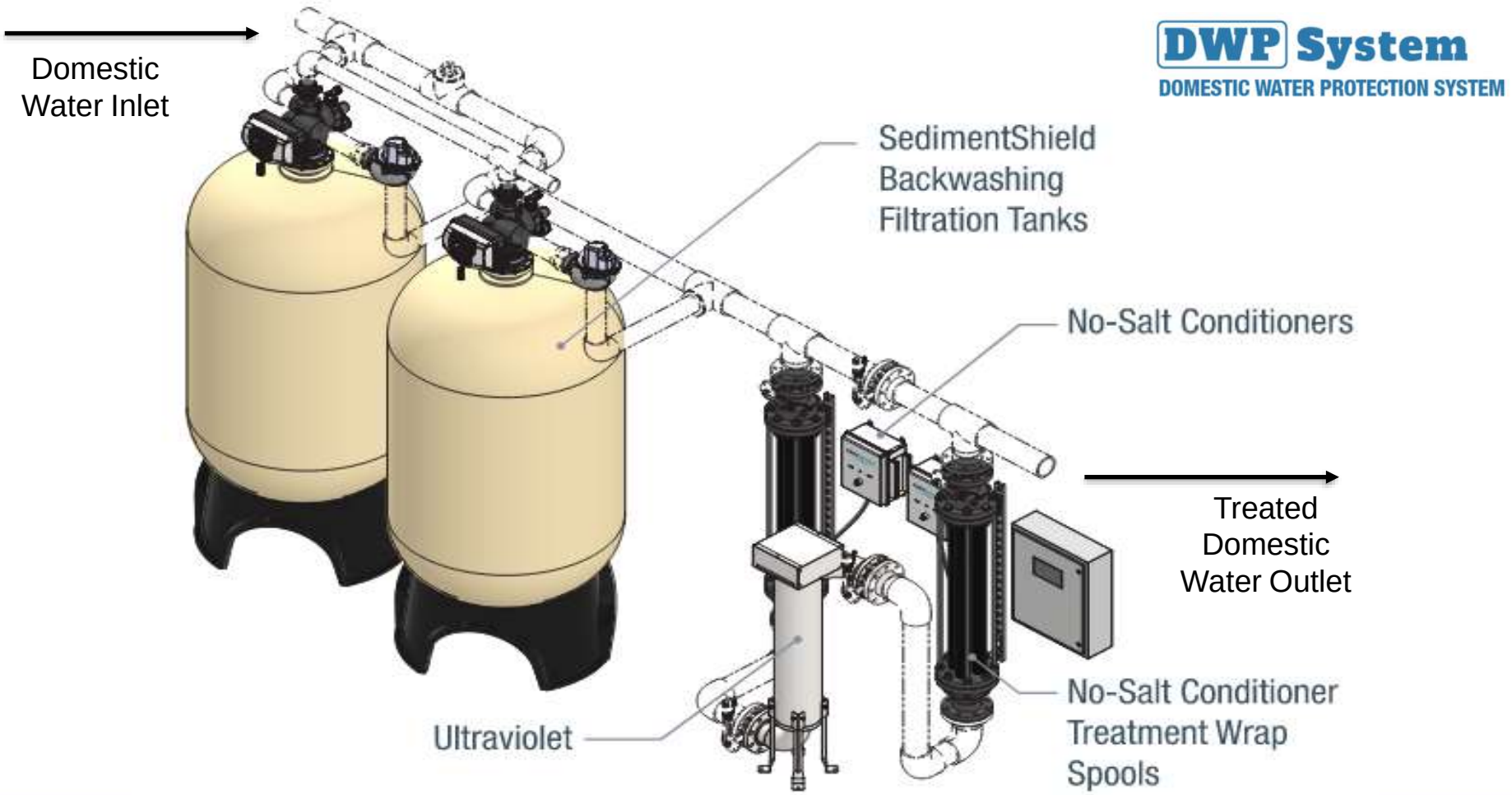
- EasyWater's DWP Treatment System treats all the domestic water at the point(s) of entry to help prevent Legionella and other microorganisms from entering and help prevent new and existing biofilm and scale throughout the system

- In addition, as part of the DWP Treatment System, No-Salt Conditioners continually treat the hot water recirc piping to reduce scale and biofilm where Legionella attempts to live and multiply

DWP System
DOMESTIC WATER PROTECTION SYSTEM

EASYWATER

DWP System – Domestic Water Legionella Treatment



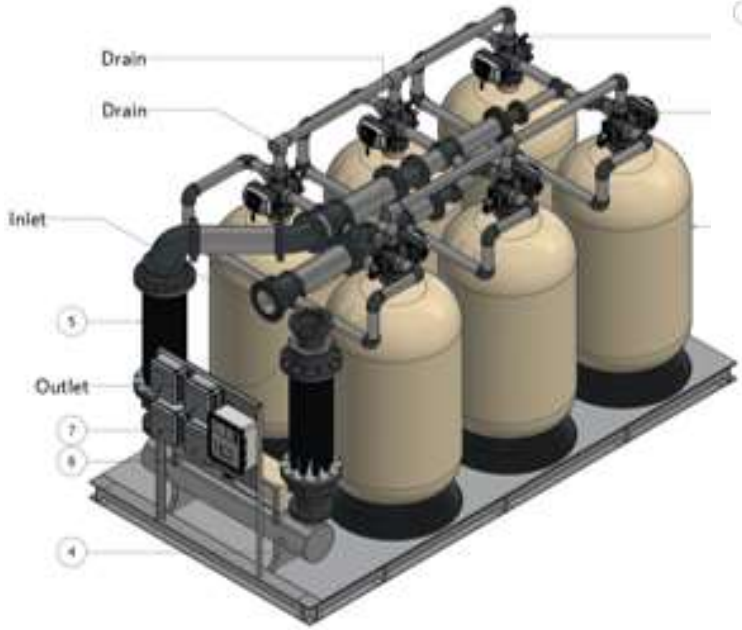
EASYWATER

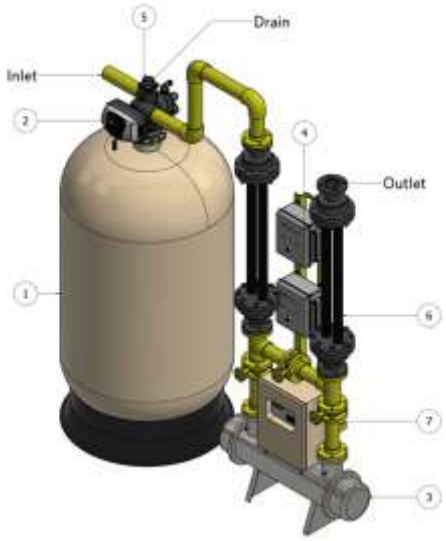
No-Salt Conditioner® Treatment of Building Hot Water Recirculation Lines

EASYWATER®

DWP System – Domestic Water Legionella Treatment Skidded and Component Configurations

Model #	Max GPM[1]	Main Size	FRP Tank Dim
DWP-15-S	15	1"	18" x 65"
DWP-30-S	30	1-1/4"	24" x 72"
DWP-50-S	50	1-1/2" or 2"	30" x 72"
DWP-100-S	100	2-1/2" or 3"	42" x 72"
DWP-200-S	200	4"	2 - 42" x 72"
DWP-300-S	300	4" or 6"	3 - 42" x 72"
DWP-400-S	400	6"	4 - 42" x 72"
DWP-500-S	500	6" or 8"	5 - 42" x 72"
DWP-600-S	600	8"	6 - 42" x 72"





Model #	Max GPM[1]	Main Size	FRP Tank Dim
DWP-15	15	1"	18" x 65"
DWP-30	30	1-1/4"	24" x 72"
DWP-50	50	1-1/2" or 2"	30" x 72"
DWP-100	100	2-1/2" or 3"	42" x 72"
DWP-200	200	4"	2 - 42" x 72"
DWP-300	300	4" or 6"	3 - 42" x 72"
DWP-400	400	6"	4 - 42" x 72"
DWP-500	500	6" or 8"	5 - 42" x 72"
DWP-600	600	8"	6 - 42" x 72"
DWP-700	700	8"	7 - 42" x 72"
DWP-800	800	8" or 10"	8 - 42" x 72"
DWP-900	900	10"	9 - 42" x 72"
DWP-1000	1,000	10"	10 - 42" x 72"

DWP System

DOMESTIC WATER PROTECTION SYSTEM

EASYWATER

The Four Most Popular Treatments for Legionella

Before DWP…

- Chlorine Dioxide (gas)
- Chlorine (liquid)
- Monochloramine
- Copper-Silver Ionization

With Chlorine Dioxide, Liquid Chlorine and Monochloramine, disinfection byproducts and piping corrosion are the biggest problems

DWP With Other Treatment Methods

- In most cases, DWP combined with the residual chlorine/chloramines from the city, will adequately minimize Legionella risk

- If desired, DWP can be combined with another treatment and will greatly enhance total protection while minimizing bacteria, sediment, scale and biofilm

DWP System
DOMESTIC WATER PROTECTION SYSTEM

DWP ENHANCES OTHER TREATMENT METHODS

- With Chlorine Dioxide, Liquid Chlorine and Monochloramine, disinfection byproducts and piping corrosion are the biggest problems

- Since DWP minimizes bacteria entering the system and helps remove the biofilm and scale where the existing bacteria is colonized, much lower chemical dosing is needed which significantly reduces disinfection by-products and corrosion

DWP System
DOMESTIC WATER PROTECTION SYSTEM

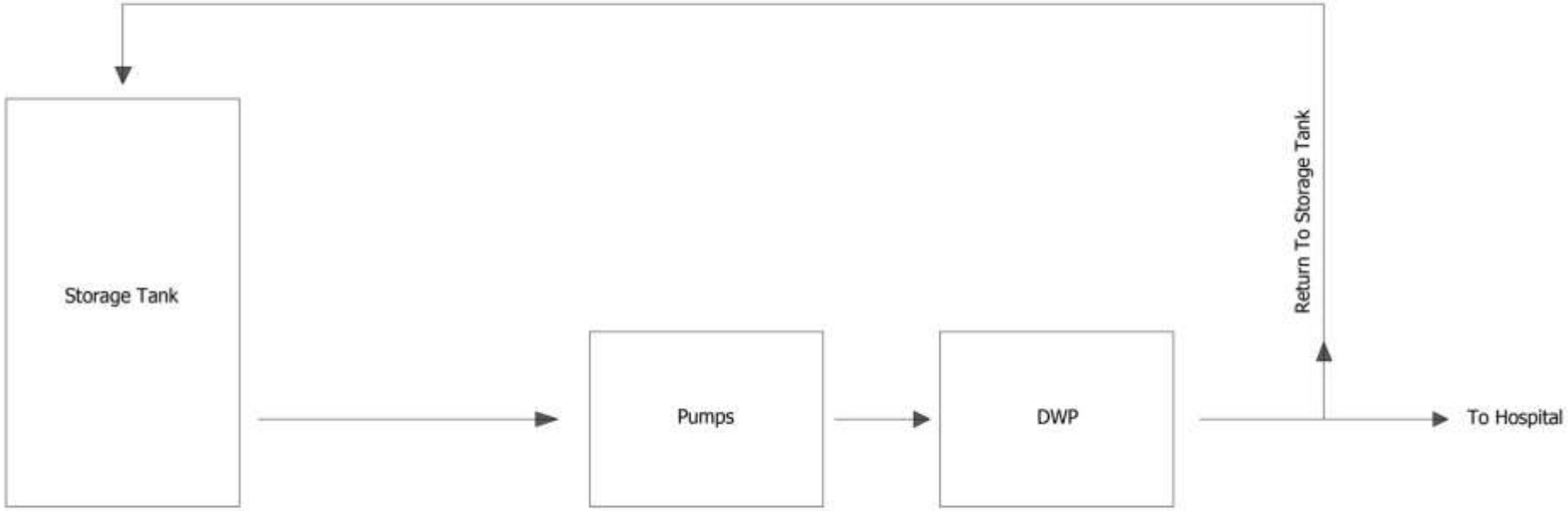
DWP ENHANCES OTHER TREATMENT METHODS

- With Copper-Silver Ionization, the primary problem is scaling on the cathode which hinders or stops the treatment and requires maintenance

- DWP System will eliminate the scaling and should also allow a smaller copper-silver dosage and thus longer life of the copper-silver rods.

DWP System
DOMESTIC WATER PROTECTION SYSTEM

Hospital Storage Water Bacteria Treatment



DWP System
DOMESTIC WATER PROTECTION SYSTEM

EASYWATER

Problem Water Treatment

Problem Water Treatment For Makeup to Cooling Towers

- Well water with iron, tannins, manganese and hydrogen sulfide (H2S)
- Reclaim water
- Pond water
- Rain water
- High chlorides
- Bacterial issues
- Acidic water
- Toxins in water
- High sediment (TSS)

Better Filtration - EasyWater® SedimentShield Filtration System

SedimentShield® Submicron Filtration System

Industry leading sub-micron filtration for sediment, bacteria and other organics

FEATURES & BENEFITS

- Proprietary blend of media filters to less than 1 micron
- Backwashes clean and does not harbor bacteria
- SedimentShield media has an expected life of 20+ years
- Removes approximately 99% of bacteria in water

TYPICAL APPLICATIONS

- Well Water Filtration
- Domestic Water Filtration
- Process Water Filtration
- Sidestream Cooling Tower Filtration
- Sidestream Closed Loop Filtration

SEDIMENT SHIELD®
SUB-MICRON FILTRATION SYSTEM

EASYWATER®

SedimentShield® Submicron Filtration System

- Proprietary blend of media effectively filters to less than 1 micron
- Backwashes clean and does not harbor bacteria
- SedimentShield media has an expected life of 20+ years
- Removes approximately 99% of bacteria in water

SKID-MOUNTED
WITH PUMP

Model #	Steel Tank Dim	Sidestream GPM
SS-12-S	12"x60"	12
SS-25-S	18"x60"	25
SS-50-S	24"x60"	50
SS-75-S	30"x65"	75
SS-100-S	36"x65"	100
SS-150-S	42"x65"	150
SS-185-S	48"x72"	185
SS-235-S	54"x72"	235
SS-300-S	60"x72"	300
SS-360-S	66"x72"	360
SS-425-S	72"x72"	425
SS-500-S	78"x72"	500
SS-580-S	84"x72"	580

INDIVIDUAL COMPONENTS
WITH PUMP

Model #	Filtration Tanks	Sidestream GPM
SS-12-P	12"x54" FRP	12
SS-20-P	16"x65" FRP	20
SS-35-P	21"x62" FRP	35
SS-50-P	24"x72" FRP	50
SS-75-P	30"x72" FRP	75
SS-75-P	30"x65" Steel	75
SS-100-P	36"x72" FRP	100
SS-100-P	36"x65" Steel	100
SS-150-P	42"x72" FRP	150
SS-150-P	42"x65" Steel	150
SS-185-P	48"x72" Steel	185
SS-200-P	2-36"x72" FRP	200
SS-235-P	54"x72" Steel	235
SS-300-P	60"x72" Steel	300
SS-300-P	2-42"x72" FRP	300
SS-360-P	66"x72" Steel	360
SS-425-P	72"x72" Steel	425
SS-450-P	3-42"x72" FRP	450
SS-500-P	78"x72" Steel	500
SS-580-P	84"x72" Steel	580
SS-600-P	4-42"x72" FRP	600

INDIVIDUAL COMPONENTS
WITHOUT PUMP

Model #	Filtration Tanks	Max Treatment GPM
SS-12	12"x54" FRP	12
SS-20	16"x65" FRP	20
SS-35	21"x62" FRP	35
SS-50	24"x72" FRP	50
SS-75	30"x72" FRP	75
SS-75	30"x65" Steel	75
SS-100	36"x72" FRP	100
SS-100	36"x65" Steel	100
SS-150	42"x72" FRP	150
SS-150	42"x65" Steel	150
SS-185	48"x72" Steel	185
SS-200	2-36"x72" FRP	200
SS-235	54"x72" Steel	235
SS-300	60"x72" Steel	300
SS-300	2-42"x72" FRP	300
SS-360	66"x72" Steel	360
SS-425	72"x72" Steel	425
SS-450	3-42"x72" FRP	450
SS-500	78"x72" Steel	500
SS-580	84"x72" Steel	580
SS-600	4-42"x72" FRP	600

SEDIMENT SHIELD®
SUB-MICRON FILTRATION SYSTEM

EASYWATER®

SedimentShield® Submicron Filtration System Vs. Other Systems

	EasyWater SedimentShield	Sand Filters	Centrifugal Separators	Disc Filters
Micron Filtration Level	Less than 1	40	75	50
Media / Equipment Life	20+ years	3 years	15+ years	15+ years
Backwashes Clean	Yes	No	Yes	Yes
Doesn't Harbor Bacteria	Yes	No	Yes	Yes
Bacteria Removal*	Excellent (Approx. 99%)	Minimal	Very Minimal	Very Minimal

** Bacteria ranges between .3 and 60 microns in size.*

SedimentShield® Submicron Filtration System

A Key technology of…

- DWP Domestic Water Protection System
- CTF Cooling Tower Treatment System
- Series C Closed Loop Treatment System
- PoolShield System

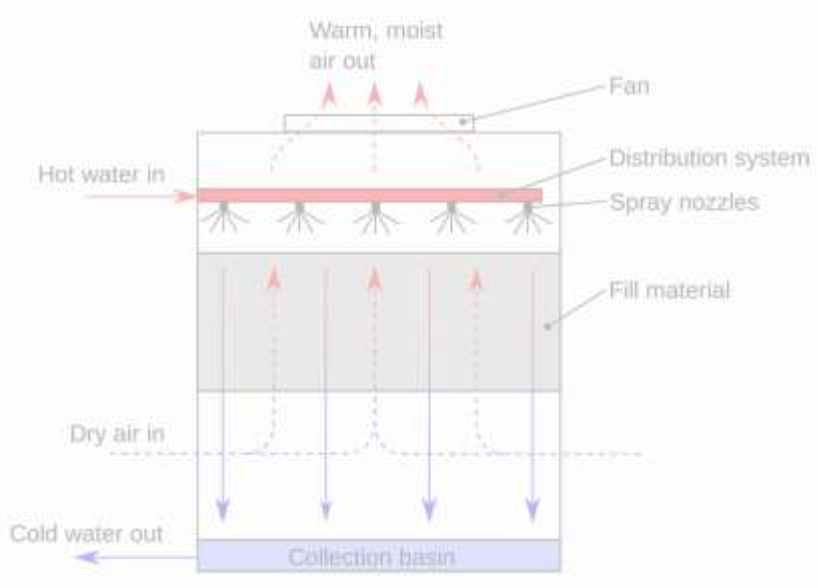
SEDIMENT SHIELD®
SUB-MICRON FILTRATION SYSTEM

Better Cooling Tower Treatment
EasyWater® CTF System

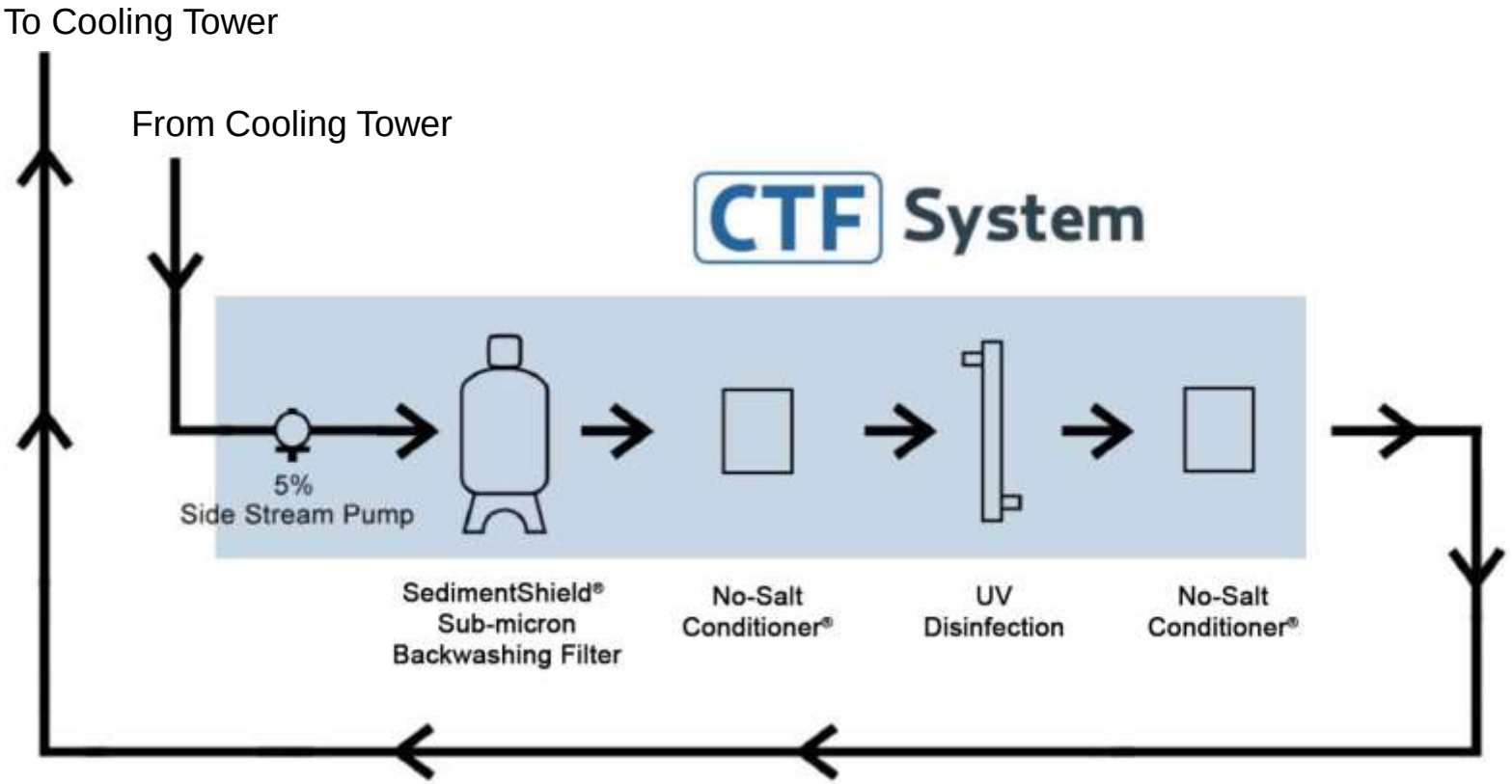
CTF Cooling Tower Treatment System

Cooling towers are extremely challenging because…

- Scale formation
- Corrosion
- High bacteria counts
- Algae
- Legionella
- Sediment buildup in the sumps



CTF Cooling Tower Treatment System



Why CTF System For Cooling Towers

ASHRAE 188 Has Put Both Engineers and Owners on Notice:

- 5% to 45% annual electrical savings
- 80 to 90% reduction chemical usage
- Typical ROI = .5 - 3-year payback

- Possible water savings
- Less equipment maintenance
- Longer equipment life

EASYWATER

ASHRAE 188 Has Put Both Engineers and Owners on Notice:

Where Does Legionella Live in a Cooling Tower:

- In the biofilm
- In the scale
- Under the sediment in the sump basins

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

EASYWATER

Keeping Sump Basins Clean

What size particles settle in water?

- The smallest particle that will settle in water is approximately 20 microns in size

SedimentShield® Submicron Filtration System Vs. Other Systems

	EasyWater SedimentShield	Sand Filters	Centrifugal Separators	Disc Filters
Micron Filtration Level	Less than 1	40	75	50
Media / Equipment Life	20+ years	3 years	15+ years	15+ years
Backwashes Clean	Yes	No	Yes	Yes
Doesn't Harbor Bacteria	Yes	No	Yes	Yes
Bacteria Removal*	Excellent (Approx. 99%)	Minimal	Very Minimal	Very Minimal

** Bacteria ranges between .3 and 60 microns in size.*

Reducing Bacteria and Biocide Chemicals In Cooling Towers

Where is all the bacteria in Cooling Tower Water:

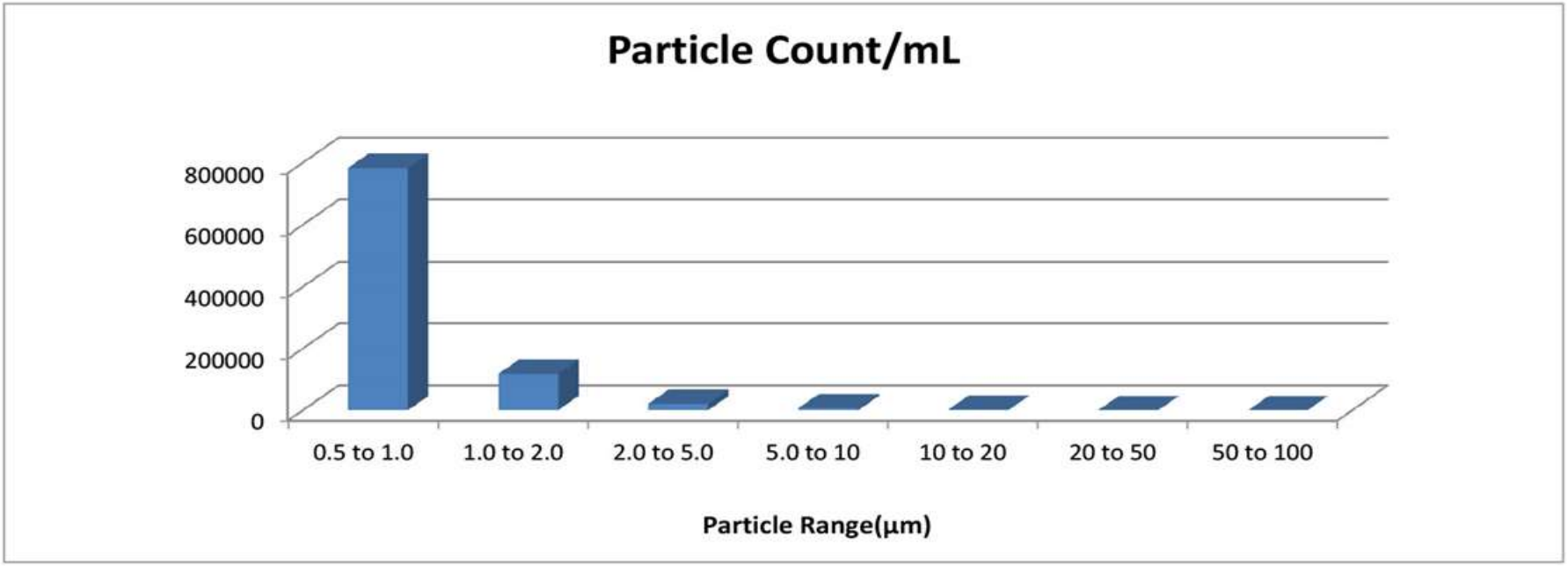
>99% particulate/bacteria in a cooling tower is between

.5 and 5 microns

ChemTreat, Inc.
10040 Lickinghole Road
Ashland, Va., 23005

Particle Size Distribution Report

Lab Number: 18-05-16-62.1
Sample ID: 40-58 COOLING TOWER



Particle Range(µm)	0.5 to 1.0	1.0 to 2.0	2.0 to 5.0	5.0 to 10	10 to 20	20 to 50	50 to 100	Total Counts
Particle Count/mL	783100	117200	20600	6300	2000	300	0	929500
Percent of Total	84.25%	12.61%	2.22%	0.68%	0.22%	0.03%	0.00%	100.00%

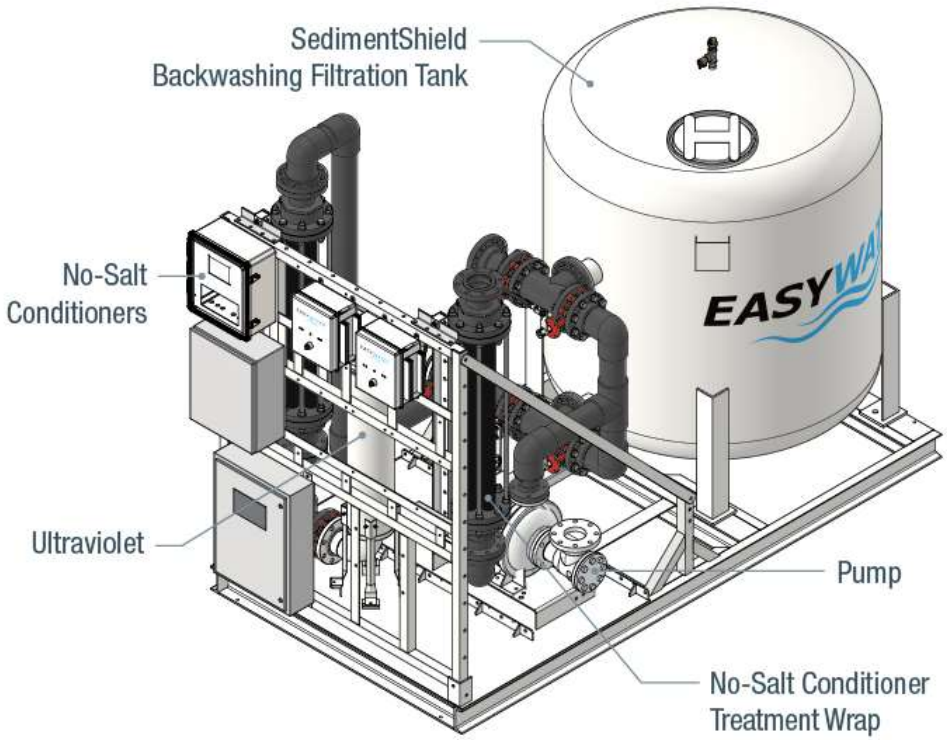
Dilution Factor =	100

SedimentShield® Submicron Filtration System Vs. Other Systems

	EasyWater SedimentShield	Sand Filters	Centrifugal Separators	Disc Filters
Micron Filtration Level	Less than 1	40	75	50
Media / Equipment Life	20+ years	3 years	15+ years	15+ years
Backwashes Clean	Yes	No	Yes	Yes
Doesn't Harbor Bacteria	Yes	No	Yes	Yes
Bacteria Removal*	Excellent (Approx. 99%)	Minimal	Very Minimal	Very Minimal

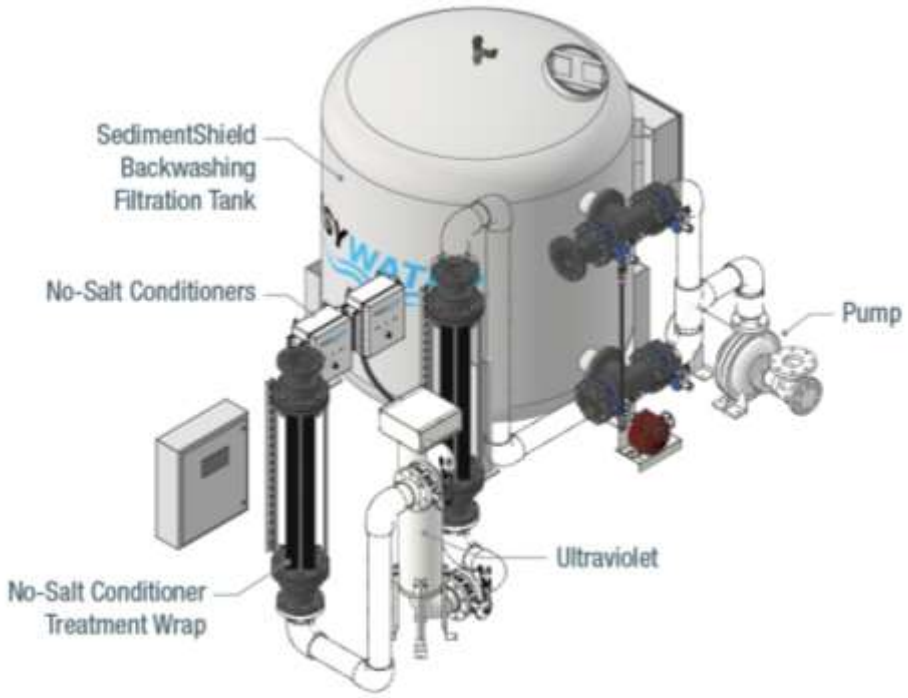
** Bacteria ranges between .3 and 60 microns in size.*

CTF System Sizing – Skid-Mounted



Model #	Cooling Tower Tons[1]	Cooling Tower GPM[2]	Steel Tank Dim	Sidestream GPM
CTF-12-S	80	240	12" x 60"	12
CTF-25-S	167	500	18" x 60"	25
CTF-50-S	333	1000	24" x 60"	50
CTF-75-S	500	1500	30" x 65"	75
CTF-100-S	667	2000	36" x 65"	100
CTF-150-S	1000	3000	42" x 65"	150
CTF-185-S	1233	3700	48" x 72"	185
CTF-235-S	1567	4700	54" x 72"	235
CTF-300-S	2000	6000	60" x 72"	300
CTF-360-S	2400	7200	66" x 72"	360
CTF-425-S	2833	8500	72" x 72"	425
CTF-500-S	3333	10,000	78" x 72"	500
CTF-580-S	3867	11,600	84" x 72"	580

CTF System Sizing – Components



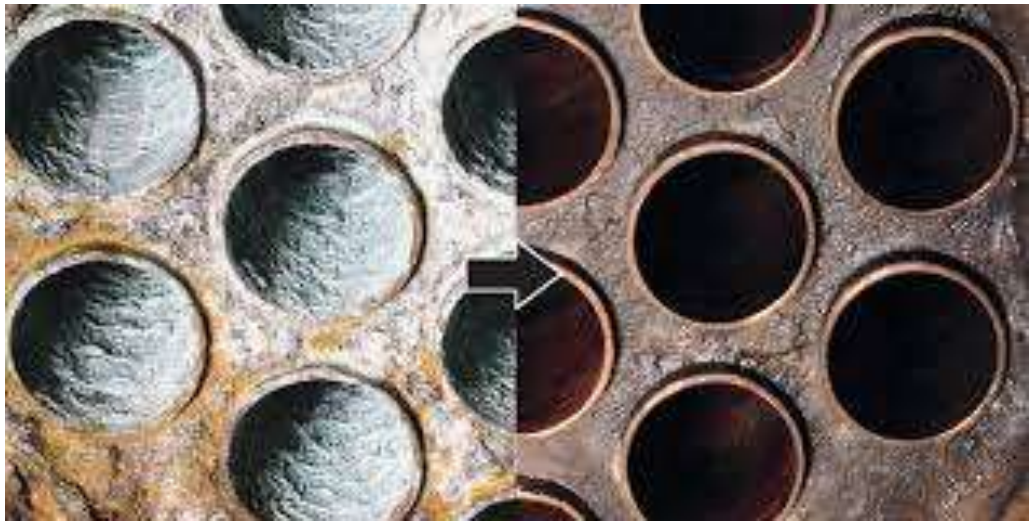
Model #	Cooling Tower Tons [1]	Cooling Tower GPM [2]	Filtration Tanks	Sidestream GPM
CTF-12	80	240	12" x 54" FRP	12
CTF-20	133	400	16" x 65" FRP	20
CTF-35	233	700	21" x 62" FRP	35
CTF-50	333	1000	24" x 72" FRP	50
CTF-75	500	1500	30" x 72" FRP	75
CTF-75	500	1500	30" x 65" Steel	75
CTF-100	667	2000	36" x 72" FRP	100
CTF-100	667	2000	36" x 65" Steel	100
CTF-150	1000	3000	42" x 72" FRP	150
CTF-150	1000	3000	42" x 65" Steel	150
CTF-185	1233	3700	48" x 72" Steel	185
CTF-200	1333	4000	2 - 36" x 72" FRP	200
CTF-235	1567	4700	54" x 72" Steel	235
CTF-300	2000	6000	60" x 72" Steel	300
CTF-300	2000	6000	2 - 42" x 72" FRP	300
CTF-350	2333	7000	66" x 72" Steel	350
CTF-425	2833	8500	72" x 72" Steel	425
CTF-450	3000	9000	3 - 42" x 72" FRP	450
CTF-500	3333	10000	78" x 72" Steel	500
CTF-580	3867	11600	84" x 72" Steel	580
CTF-600	4000	12000	4 - 42" x 72" FRP	600

EASYWATER®

CTF System ROI Calculations

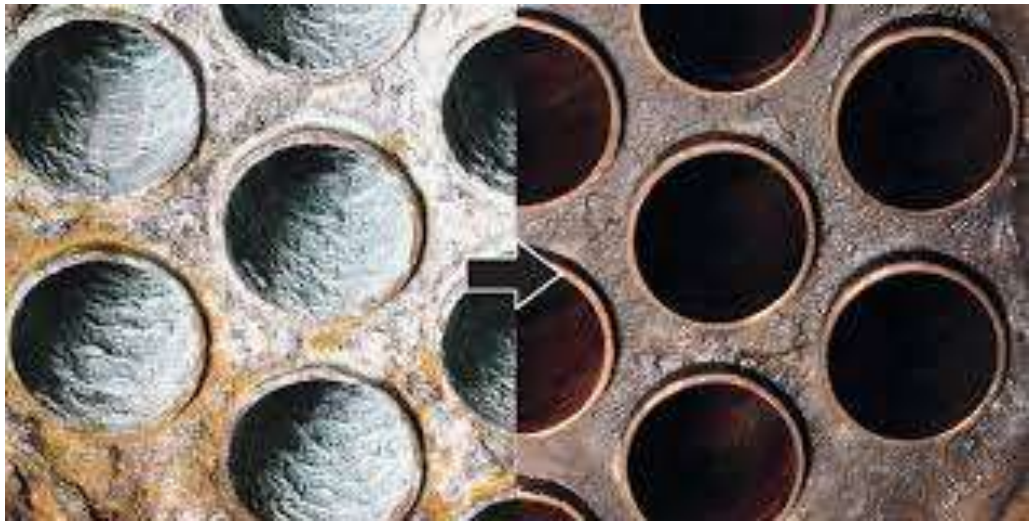
Energy Savings With CTF Treatment System

Having calcium carbonate scale and/or biofilm in the condenser tubes of the chillers, insulates the condenser water from the refrigerant, causing an increase in head pressure and energy usage



Energy Savings With CTF Treatment System

For every 1°F, the chiller condensing temperature rises from scale or biofilm deposits, the compressor uses 1.5% more energy



Energy Savings With CTF Treatment System - Scale

	Fouling Factor	% Efficiency Loss
0	0.0000	0
0.01	0.0008	9
0.02	0.0017	18
0.03	0.0025	27
0.04	0.0033	36
0.05	0.0042	45

Energy Savings With CTF Treatment System - Biofilm

Higher bacteria counts (10^4 - 10^5) are typical in cooling towers and produce a thin biofilm or slime layer in the condenser tubes that has an insulating affect

Biofilm Thickness in Tubes	Increase in Energy
0.006 inches	5.3%
0.012 inches	10.8%
0.024 inches	21.5%

Energy Savings With CTF Treatment System - ROI

System Information

3,000 tons

Chillers average .65 kw/ton

28.7% average annual 24/7 load

$.1146/kwhr electric power cost

Scale and Biofilm

.02 average scale thickness/yr.

.006 average biofilm thickness/yr.

Chemical Usage

$40,000 annual chemical cost before CTF

$10,000 annual chemical cost after CTF

CTF System Cost

$150,000 Total Installed CTF System

Energy Savings With CTF Treatment System - ROI

Operation Cost/yr.

3,000 tons

Chillers average .65 kw/ton

28.7% average annual 24/7 load

$.1146/kwhr electric power cost

Operating Cost = $561,830/yr.

3,000 tons x .65 kw/ton x 24 hrs/day x 365 days/yr x .287 avg annual load = 4,902,534 kwhrs/yr

4,902,534 kwhrs/yr x $.1146/kwhr = $561,830/yr

Energy Savings With CTF Treatment System - ROI

System and Biofilm

.02 average scale thickness/yr.

Additional Cost =
$101,129(18%)

.006 average biofilm thickness/yr.

Additional Cost =
$29,777 (5.3%)

Total Energy Savings =
$130,906

$561,830 x 23.3% (addl. 18% for scale and 5.3% for biofilm) = $130,906 annual energy savings

Energy Savings With CTF Treatment System - ROI

System and Biofilm

.02 average scale thickness/yr.

Additional Cost = $101,129(18%)

.006 average biofilm thickness/yr.

Additional Cost = $29,777 (5.3%)

Total Energy Savings = $130,906

Chemical Usage

$40,000 annual chemical cost **before** CTF

$10,000 annual chemical cost **with** CTF

Savings = $30,000

EASYWATER

Energy Savings With CTF Treatment System - ROI

$130,906 annual energy savings + $30,000 annual chemical savings = **$160,906** total annual savings

$150,000 Fully Installed CTF Treatment System cost

.94 YEARS PAYBACK

Shell Point– Fort Myers, FL

Project Background:

- 8,000 total ton system
- Scaled system
- Water was turbid and dirty
- High bacteria counts
- Costly chemical treatment
- Were adding an EXTRA cup of biocide to each tower daily before CTF was installed

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Shell Point– Fort Myers, FL

Previous Sand Filter Treatment:

(2) 475 gpm (each) Sand Filters

EASYWATER

Shell Point– Fort Myers, FL

EasyWater Solution:

(2) EasyWater CTF-360-S skid mounted treatment systems started December 17, 2020

Shell Point– Fort Myers, FL

BEFORE

2 WEEKS AFTER STARTUP

EASYWATER®

Shell Point– Fort Myers, FL

BEFORE

2 WEEKS AFTER STARTUP

EASYWATER

Shell Point– Fort Myers, FL

Bacteria Culture Test

12-14-2020 - 10^5

12-30-2020 - 10^0

EASYWATER

Boca Raton Regional Hospital – Boca Raton, FL

Project Background:

- 3 Cell, 3300 ton system
- Sand filters & sump sweep system
- Dangerously high Legionella counts
- Excessive algae, turbidity, and biofilm
- Very high bacteria counts
- Costly chemical treatment
- Semi-annual shutdowns for pressure washing and heavy chemical dosing

EASYWATER®

Boca Raton Regional Hospital – Boca Raton, FL

Previous Treatment:

(3) Existing sand filters removed May 2019

Boca Raton Regional Hospital – Boca Raton, FL

EasyWater Solution:

- (3) EasyWater CTF-150 Treatment Systems installed June 6, 2019
- System installed on 3 existing pads

EASYWATER

Boca Raton Regional Hospital – Boca Raton, FL

CTF Treatment System:

- EasyWater Sediment Shield - Backwashing filter with proprietary sub-micron media
- Ultraviolet Disinfection System
- (2) No-Salt Conditioners

Boca Raton Regional Hospital – Boca Raton, FL

BEFORE

2 WEEKS AFTER STARTUP

EASYWATER®

Boca Raton Regional Hospital – Boca Raton, FL

BEFORE

2 WEEKS AFTER STARTUP

EASYWATER®

Boca Raton Regional Hospital – Boca Raton, FL

BEFORE

2 WEEKS AFTER STARTUP

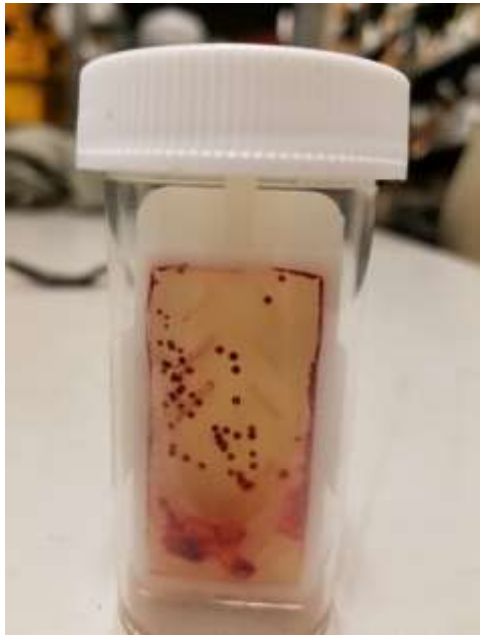
EASYWATER®

Boca Raton Regional Hospital – Boca Raton, FL

Bacteria Culture Test

South Tower: Main Building

6-5-2019 - 10^5



6-17-2019 - 10^0

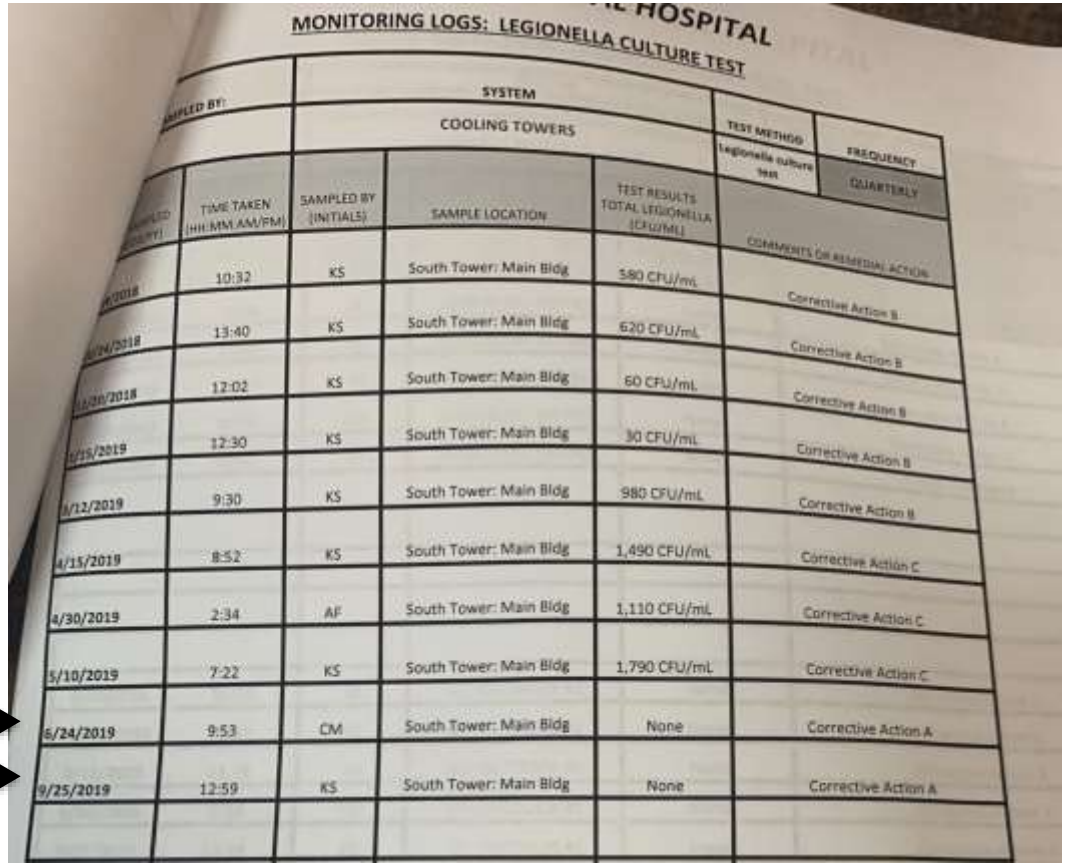
Boca Raton Regional Hospital – Boca Raton, FL

Owner's Log

120-Day Treatment Result

Legionella Culture Test

After installation of EasyWater equipment



HOSPITAL

MONITORING LOGS: LEGIONELLA CULTURE TEST

SAMPLED BY:		SYSTEM: COOLING TOWERS			TEST METHOD: Legionella culture test	FREQUENCY: QUARTERLY
SAMPLED (DATE/MO/YR)	TIME TAKEN (HH:MM AM/PM)	SAMPLED BY (INITIALS)	SAMPLE LOCATION	TEST RESULTS TOTAL LEGIONELLA (CFU/ML)	COMMENTS OR REMEDIAL ACTION	
[illegible]/2018	10:32	KS	South Tower: Main Bldg	580 CFU/mL	Corrective Action B	
[illegible]/24/2018	13:40	KS	South Tower: Main Bldg	620 CFU/mL	Corrective Action B	
[illegible]/20/2018	12:02	KS	South Tower: Main Bldg	60 CFU/mL	Corrective Action B	
[illegible]/15/2019	12:30	KS	South Tower: Main Bldg	30 CFU/mL	Corrective Action B	
3/12/2019	9:30	KS	South Tower: Main Bldg	980 CFU/mL	Corrective Action B	
4/15/2019	8:52	KS	South Tower: Main Bldg	1,490 CFU/mL	Corrective Action C	
4/30/2019	2:34	AF	South Tower: Main Bldg	1,110 CFU/mL	Corrective Action C	
5/10/2019	7:22	KS	South Tower: Main Bldg	1,790 CFU/mL	Corrective Action C	
6/24/2019	9:53	CM	South Tower: Main Bldg	None	Corrective Action A	
9/25/2019	12:59	KS	South Tower: Main Bldg	None	Corrective Action A	

EASYWATER

Boca Raton Regional Hospital – Boca Raton, FL

120 Day Treatment Results:

- Legionella remains Non-Detectable
- Bacteria remains 10^0
- Still no algae
- Water remains clear
- Significant reduction of all chemicals including elimination of acid

After installation of EasyWater equipment →

Boca Raton Regional Hospital

LEGIONELLA CULTURE TEST RESULTS

DATE SAMPLED	TEST RESULTS TOTAL LEGIONELLA
9/24/2018	580 CFU/mL
10/24/2018	620 CFU/mL
12/20/2018	60 CFU/mL
1/15/2019	30 CFU/mL
3/12/2019	980 CFU/mL
4/15/2019	1,490 CFU/mL
4/30/2019	1,110 CFU/mL
5/10/2019	1,790 CFU/mL
6/24/2019	None
9/25/2019	None

EASYWATER

Better Closed Loop Treatment
EasyWater® Series C ™ System

The Primary Problems in Closed Loop Systems:

- Corrosion from dissolved oxygen
- Sub-micron ferrous metal and sediment
- Insulating high iron content, lime scale or biofilm deposits

How Does Dissolved Oxygen Enter a Closed Loop?

- With makeup water
- Through vented tanks
- Faulty air vents
- From expansion tank and relief valve
- During shutdown periods
- When system is opened for maintenance

Sodium Nitrite Treatment

Sodium Nitrite is the chemical used for most closed loop treatment

Sodium Nitrite Treatment

Sodium Nitrite is the chemical used for most closed loop treatment

Nitrite is an oxidizer and attempts to passivate or form a protective oxidative coating on the steel and copper surfaces to reduce corrosion from dissolved oxygen

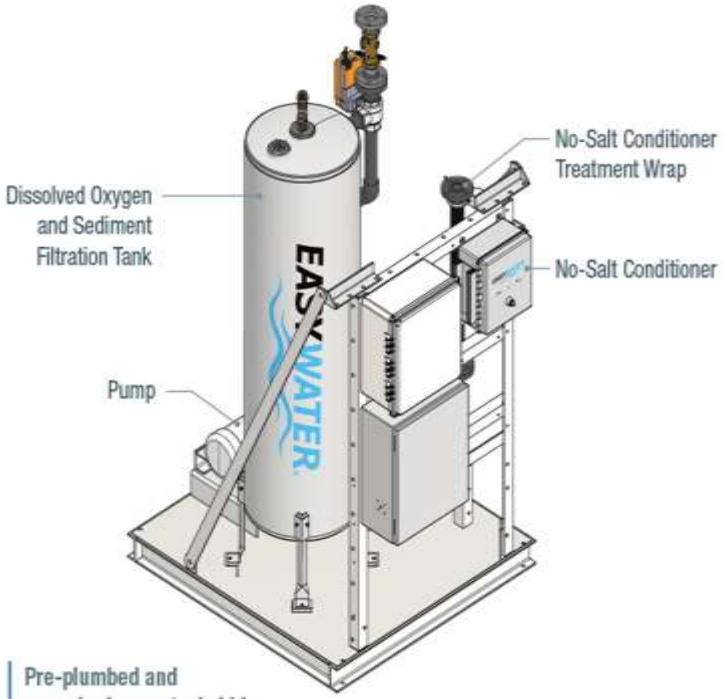
Series C Closed Loop Treatment

- Removes the problem - **dissolved oxygen**
- Continuous side stream treatment
- Requires no chemical
- Filters suspended sediment and ferrous metal to sub-micron levels
- Prevents new/removes existing iron oxide, scale and biofilm deposits

Series C Closed Loop Treatment

Series C
CLOSED LOOP TREATMENT SYSTEM

SKID-MOUNTED



Pre-plumbed and pre-wired on a steel skid

Model # [1]	Max System Gals [2]	Steel Tank Dim [3]	Sidestream GPM
CLC/CLH-1000-S	4,000	12" x 60"	12
CLC/CLH-2000-S	10,000	18" x 60"	25
CLC/CLH-3000-S	25,000	24" x 60"	50
CLC/CLH-4000-S	45,000	30" x 65"	75
CLC/CLH-5000-S	70,000	36" x 65"	100
CLC/CLH-6000-S	120,000	42" x 65"	150
CLC/CLH-7000-S	150,000	48" x 72"	185
CLC/CLH-8000-S	200,000	54" x 72"	235
CLC/CLH-9000-S	300,000	60" x 72"	300
CLC/CLH-10000-S	375,000	66" x 72"	360
CLC/CLH-11000-S	440,000	72" x 72"	425
CLC/CLH-12000-S	500,000	78" x 72"	500
CLC/CLH-13000-S	600,000	84" x 72"	580

Options such as stainless tanks, piping and skids along with dual pumps and various control options are available upon request. Contact EasyWater or local rep for more information.

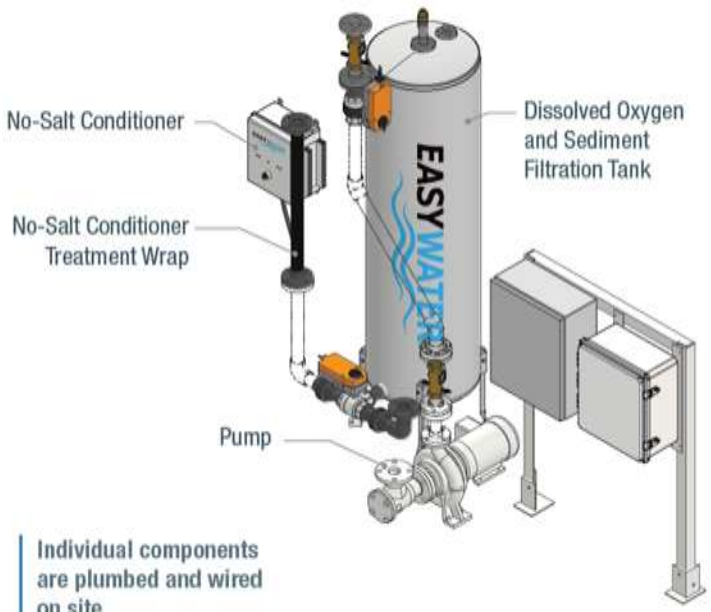
[1] Use "CLC" for chilled water applications and "CLH" for hot water applications
[2] Total volume of water in the closed loop
[3] Steel tank contains dissolved oxygen removal media and sub-micron SedimentShield media

EASYWATER

Series C Closed Loop Treatment

Series C
CLOSED LOOP TREATMENT SYSTEM

INDIVIDUAL COMPONENTS



Individual components are plumbed and wired on site

Model # [1]	Max System Gals [2]	Steel Tank Dim [3]	Sidestream GPM
CLC/CLH-1000	4,000	12" x 60"	12
CLC/CLH-2000	10,000	18" x 60"	25
CLC/CLH-3000	25,000	24" x 60"	50
CLC/CLH-4000	45,000	30" x 65"	75
CLC/CLH-5000	70,000	36" x 65"	100
CLC/CLH-6000	120,000	42" x 65"	150
CLC/CLH-7000	150,000	48" x 72"	185
CLC/CLH-8000	200,000	54" x 72"	235
CLC/CLH-9000	300,000	60" x 72"	300
CLC/CLH-10000	375,000	66" x 72"	360
CLC/CLH-11000	440,000	72" x 72"	425
CLC/CLH-12000	500,000	78" x 72"	500
CLC/CLH-13000	600,000	84" x 72"	580

Options such as stainless tanks and piping along with dual pumps and various control options are available upon request. Contact EasyWater or local rep for more information.

[1] Use "CLC" for chilled water applications and "CLH" for hot water applications
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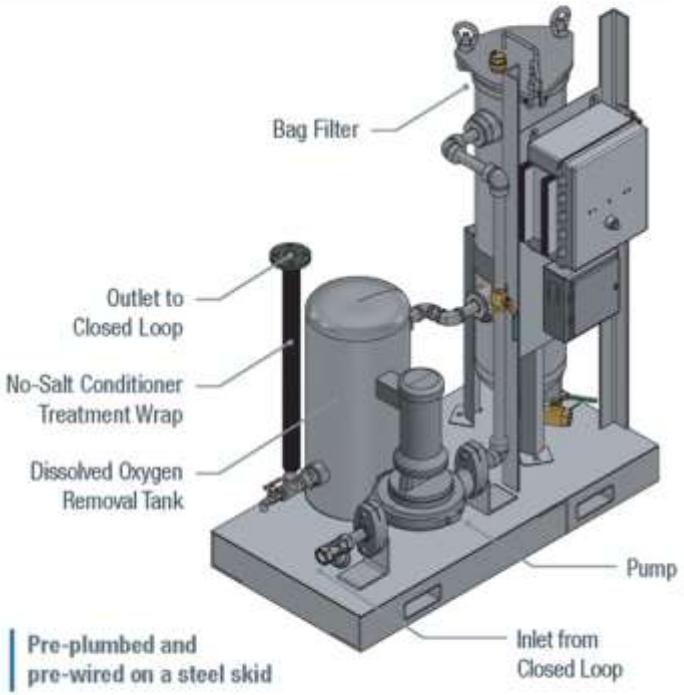
EASYWATER

Series C Closed Loop Treatment

Series C
CLOSED LOOP TREATMENT SYSTEM

SKID-MOUNTED



Pre-plumbed and pre-wired on a steel skid

Model #	Max System Gals [1]	Steel DO Removal Tank Dim	Qty of Stainless Bag Filters [2]	Sidestream GPM
CLG-1000-S	4,000	8" x 20"	1	12
CLG-2000-S	10,000	8" x 30"	1	25
CLG-3000-S	25,000	8" x 40"	1	50
CLG-4000-S	45,000	10" x 40"	2	75
CLG-5000-S	70,000	12" x 40"	2	100
CLG-6000-S	120,000	14" x 40"	2	150
CLG-7000-S	150,000	18" x 48"	3	185
CLG-8000-S	200,000	18" x 48"	3	235
CLG-9000-S	300,000	24" x 60"	3	300
CLG-10000-S	375,000	24" x 60"	4	360
CLG-11000-S	440,000	30" x 65"	4	425
CLG-12000-S	500,000	30" x 65"	6	500
CLG-13000-S	600,000	36" x 65"	6	600

Options such as stainless tanks, piping and skids along with dual pumps and various control options are available upon request. Contact EasyWater or local rep for more information.

[1] Total volume of water in the closed loop

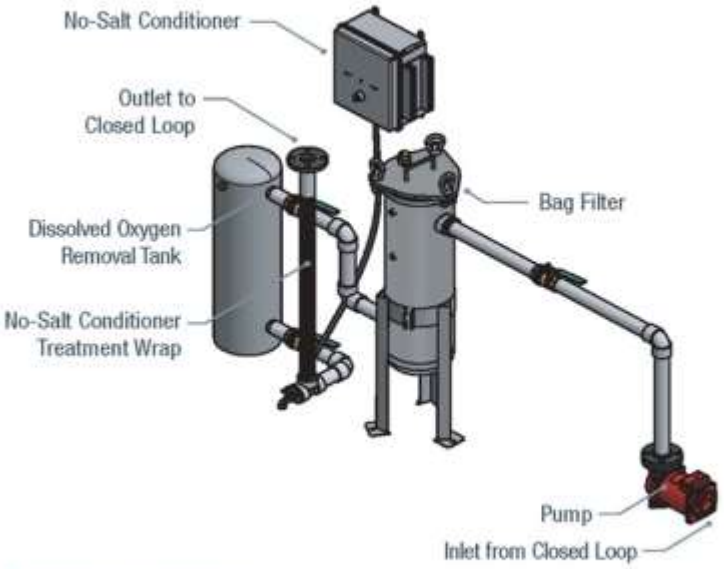
[2] Bag filters for all skid-mounted models are 12"x40" stainless steel housings that hold 8"x30" bags for sediment and bacteria removal

EASYWATER

Series C Closed Loop Treatment

Series C
CLOSED LOOP TREATMENT SYSTEM

INDIVIDUAL COMPONENTS



Individual components are plumbed and wired on site

Model #	Max System Gals [1]	Steel DO Removal Tank Dim	Qty of Stainless Bag Filters [2]	Sidestream GPM
CLG-500 [3]	1,000	8" x 15"	1	5
CLG-1000	4,000	8" x 20"	1	12
CLG-2000	10,000	8" x 30"	1	25
CLG-3000	25,000	8" x 40"	1	50
CLG-4000	45,000	10" x 40"	2	75
CLG-5000	70,000	12" x 40"	2	100
CLG-6000	120,000	14" x 40"	2	150
CLG-7000	150,000	18" x 48"	3	185
CLG-8000	200,000	18" x 48"	3	235
CLG-9000	300,000	24" x 60"	3	300
CLG-10000	375,000	24" x 60"	4	360
CLG-11000	440,000	30" x 65"	4	425
CLG-12000	500,000	30" x 65"	6	500
CLG-13000	600,000	36" x 65"	6	600

Options such as FRP, stainless and steel tanks along with dual pumps and various control options are available upon request. Contact EasyWater or local rep for more information.

[1] Total volume of water in the closed loop
[2] Bag filters for all component models are 12"x40" stainless steel housings that hold 8"x30" bags for sediment and bacteria removal
[3] Model CLG-500 does not come with a pump and should be installed where a pot feeder is typically located on the suction and discharge side of the closed loop pumps.

EASYWATER

Series C Closed Loop Treatment

- A dissolved oxygen test kit is provided with each Series C Treatment System
- Prior to using Series C, closed loops will contain 3 to 7 ppm of dissolved oxygen
- Two weeks after using Series C, dissolved oxygen will be 0 to 1 ppm

Tallahassee Community College: Closed Loop Treatment Systems

Customer:	Tallahassee Community College
Job Facts:	270-acre community college in Tallahassee, FL, with over 40,000 students enrolled
Scope of Work	Closed loop treatment for chilled and hot water systems
EasyWater Equipment	• 3 x Series C 4,000-Gal Closed Loop Treatment Systems • 1 x Series C 25,000-Gal Closed Loop Treatment System • 1 x Series C 40,000-Gal Closed Loop Treatment System

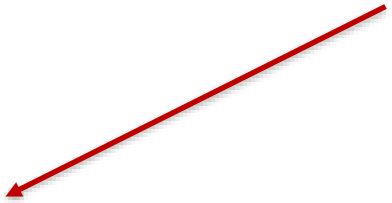
EASYWATER®

From: David Michelsen <Mick.Michelsen@chemaqua.com>
Sent: Wednesday, February 14, 2018 2:53 PM
To: Don Herr
Subject: Hot Loop test results

Don,

Please see below for our test results on the hot water closed loop.

Conductivity	311 umhos
pH	8.20
"P" Alkalinity	4 ppm
Total Alkalinity	172 ppm
Total Hardness	74 ppm
Iron	0.00 ppm
Copper	0.02 ppm



I'm very impressed with the very low iron and copper levels. This indicates great corrosion control in the system.

Thanks,

David "Mick" Michelsen
Water Treatment Consultant
Chem-Aqua
Mick.Michelsen@chemaqua.com
(850) 545-9313 cellular

EASYWATER

CASE STUDY:
CocoWalk Lifestyle Center

COOLING TOWER & CLOSED LOOP WATER TREATMENT

Project:	CocoWalk Lifestyle Center
Location:	Coconut Grove, FL
Scope of Work:	▸ 2-Cell, 720 Ton Cooling Tower System ▸ Less Than 4000 Gallon Closed Loop
EasyWater Equipment:	▸ CTF - Cooling Tower Treatment (Model CTF-100) ▸ Series C - Closed Loop Treatment (Model CLC-1000)

EASYWATER

EASYWATER

CASE STUDY:
CocoWalk Lifestyle Center

EasyWater Series C System:
Model CLC-1000 Installation at CocoWalk

EasyWater's Series C System is an advanced closed loop treatment system that eliminates the need for chemical treatment:

- Proprietary filtration media that continuously removes dissolved oxygen
- Sub-micron, self-backwashing filter for the removal of sediment, debris, and bacteria
- EasyWater No-Salt Conditioners to prevent and remove hard water scale deposits, biofilm, and bacteria.

≈ **RESULTS:** CLOSED LOOP WITH SERIES C SYSTEM

The Series C Closed Loop Treatment System has continuously maintained low dissolved oxygen and corrosion rates in the system while removing dirt debris, and deposits that were in the system.

Dirt and debris being removed during backwashing

Corrosion coupons lost only .0692 mils/yr, which is beyond EXCELLENT according to the chart on the next page!

***Before** - Dissolved oxygen test results 5-6ppm*

***After 8 Months** - Dissolved oxygen maintained at <1ppm*

Description	Carbon Steel	Copper Alloys
Excellent	Less than or equal to 0.2	Less than or equal to 0.1
Good	0.2 to 0.5	0.1 to 0.25
Moderate	0.5 to 0.8	0.25 to 0.35
Poor	0.8 to 1	0.35 to 0.5
Very Poor to Severe	Greater than or equal to 1	Greater than or equal to 0.5

Date: 6/8/2022

Metal Samples,Co., Inc.
Phone: (256) 358-4202
Corrosion Analysis Data Report

Customer : EASYWATER
Purchase Order: MAIL/JASON

Shop Order : 218204

Alloy	: C1010	ID Number	: BW4594
Initial Weight	: 11.0322	Installed	: 7/15/2021
Final Weight	: 10.9908	Removed	: 5/12/2022
Weight Loss	: 0.0414	Hours Exposed	: 7224
Density (g/cm3)	: 7.8700	Surface Area (in2)	: 3.3691

Mils Per Year : 0.1155
Comments : NO VISIBLE ETCHING.PRE-CLEAN=11.0138
Location : COCOWALK PUMP ROOM/CHILLED WATER

Alloy	: CDA110	ID Number	: DB8397
Initial Weight	: 12.3579	Installed	: 7/15/2021
Final Weight	: 12.3429	Removed	: 5/12/2022
Weight Loss	: 0.0150	Hours Exposed	: 7224
Density (g/cm3)	: 8.8900	Surface Area (in2)	: 3.3691

Mils Per Year : 0.0371
Comments : NO VISIBLE ETCHING.PRE-CLEAN=12.3598
Location : COCOWALK PUMP ROOM/CHILLED WATER

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Series C Energy Savings

Insulating Iron Deposits Can Grow with Time

- The left deposit is a newer building and is about .030”
- The right deposit is from an older building and is about .064”

Chiller/AHU Tubes - High Iron Content Deposit Thickness vs Increased Electricity Cost

Deposit Thickness, In Inches	Fouling Factor	% Efficiency Loss
0	0.0000	0
0.012	0.001	6.4
0.024	0.002	14.4
0.036	0.003	27.2

Series C/Chemical Treatment Comparison

Chemicals or EasyWater Series C Treatment System are the only options for treating closed loops

	EasyWater Series C System	Chemical Treatment	Chemical Treatment + Filtration (Ex: Bag or Cartridge Filter)
Corrosion Control	Excellent	Average	Average
Filtration Effectiveness	Excellent	None	Below Average
Keeps Deposits From Forming	Excellent	None	None
Removes Existing Deposits	Excellent	None	None
Effectively Treats Closed Loops With Leaks	Excellent	Poor	Poor
Effectively treats closed loops with vented tanks	Excellent	Poor	Poor

Better Pool Treatment
EasyWater® PoolShield™ System

PoolShield™

POOL & SPA TREATMENT SYSTEM

An innovative way to significantly reduce the use of chemicals while providing better results

The 4 Major Problems in Pools, Spas & Bodies of Water:

1. Harsh chemicals irritating skin and eyes
2. Disinfection By-Products (DBPs) created as chemicals kill bacteria
3. Risk of Legionella, Cryptosporidium and Pseudomonas
4. Scale and Biofilm forming on pool walls and in pool equipment

Skid-Mounted PoolShield System

Also see individual components option on next page

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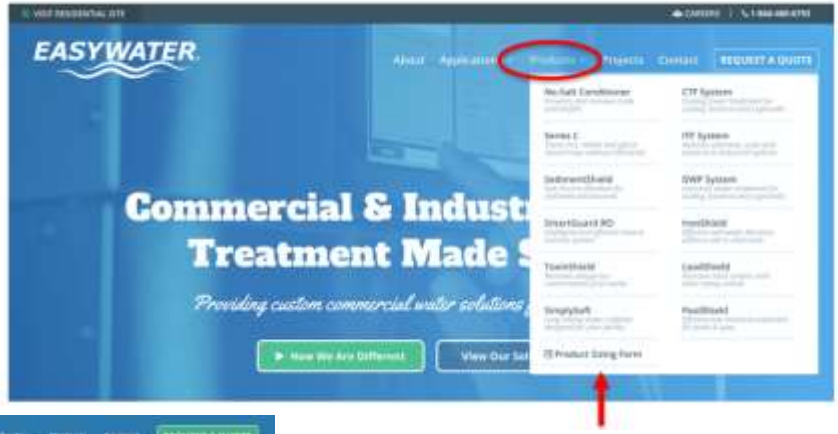
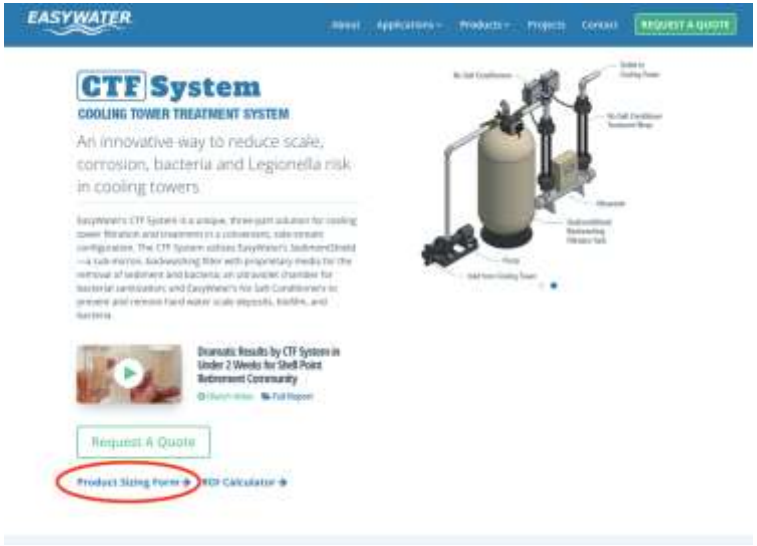
Product Application Data, Sizing Forms, and ROI Calculators are on our Website

www.easywater.com

Sizing and Selection Forms





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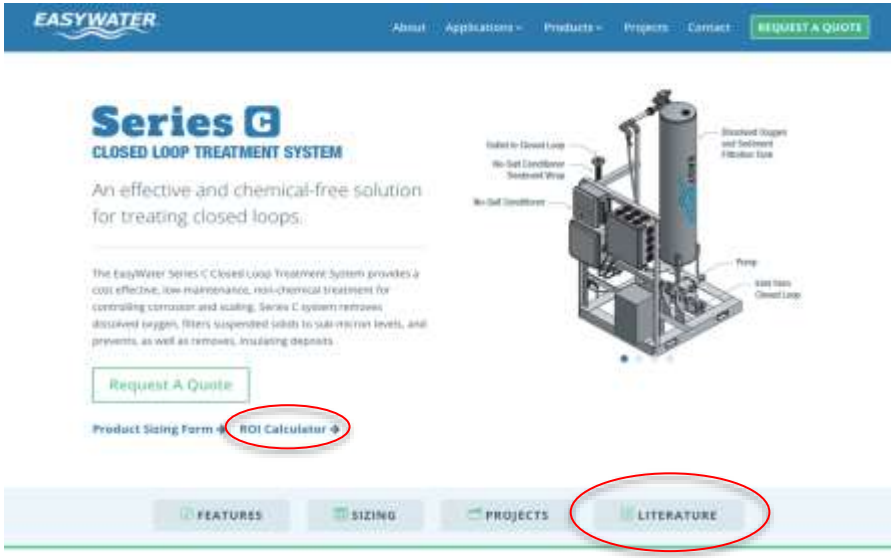
ROI Forms – Series C and CTF Treatment Systems



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Working with EasyWater

- In the Design Development phase of a project, send us the address. From our data bank, we will know the water quality from that municipal plant
- Then, send us product survey forms from our website for each water using application (domestic, cooling towers, etc.)
- Then, send us any schedules or cut sheet of water using equipment (chillers, cooling towers, heating boilers, steam boilers, domestic water heaters, sterilizers, cart washers, humidifiers, etc.) and general piping layouts

EasyWater Will Quickly Provide Through our Rep:

- CAD/Revit drawings
- P&IDs
- Installations drawings
- Specifications for each piece of equipment
- Budget pricing for each piece of equipment

Questions/Comments