

Commercial Restaurant Water Treatment









3 Major Concerns for Water Treatment

- 1. Scale is caused by hard water. Hard water contains dissolved calcium and magnesium. Scaling can occur with temporary hardness and permanent hardness.
 - Temporary Hardness, or Carbonate Hardness, is composed of the carbonate and bicarbonate ions of Ca and Mg. The carbonates will deposit on hot surfaces.

Examples: CaCO₃, MgCO₃, Ca(HCO3)₂, Mg(HCO3)₂

Permanent Hardness, or Non-Carbonate, is hardness in the presence of dissolved Ca & Mg -> sulfates, silicates, nitrates, chlorides, and phosphates – Removed by softening, demineralization, RO

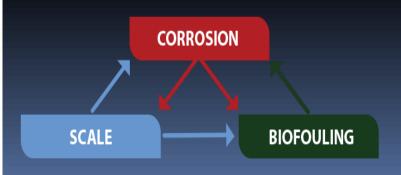
Examples: CaCl₂, Mg(NO₃)₂, Ca₂SiO₄, MgSO₄

| Classification | Hardness (PPM) | Hardness (GPG) |
|-----------------|----------------|----------------|
| Soft | 0–60 | 0–3.50 |
| Moderately hard | 61–120 | 3.56-7.01 |
| Hard | 121–180 | 7.06-10.51 |
| Very hard | ≥ 181 | ≥ 10.57 |

3 Major Concerns for Water Treatment

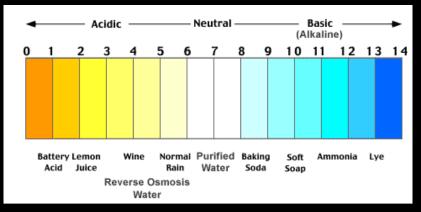
- 2.Corrosion is the gradual decomposition or destruction of a material by oxidation or chemical actions, often due to an electrochemical reaction. Corrosion starts at the surface or a material and moves inward. Corrosion of iron or steel is commonly called rusting.
- 3.Biofouling is the gradual accumulation of waterborne organisms (such as bacteria and protozoa) on the surfaces of equipment in water that contributes to corrosion of the equipment

| Causes of corrosion and scale | | | | |
|---------------------------------|------------------------------------|--|--|--|
| Corrosion | Scale | | | |
| Low pH > 6.9 | High pH >8.5 | | | |
| Softwater (NaHCO ₃) | Ca(HCO ₃) ₂ | | | |
| Low alkalinity High Alkalinity | | | | |
| Permanent | t Hardness | | | |



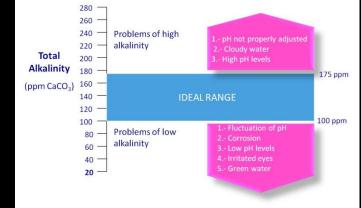
Causes of Scale

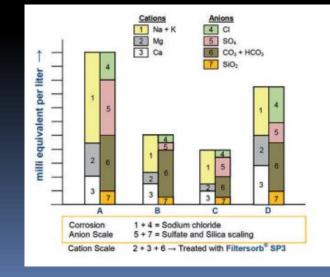
- High Alkalinity
- •High pH
- Calcium
- Phosphates
- •Silica
- Sulfates
- Chloride



Causes of Corrosion

- Acidity (low pH)
- High mineral concentrations
- Chlorides
- Soft Water
- RO water
- Sulfates
- **Nitrates**
- Chlorine
- Chloramines
- Hydrogen Sulfide
- Stray current electrolysis
- Galvanic corrosion caused by dissimilar metals
- Dissolved oxygen content
- Water temperatures
- Biofouling





Water Treatment Technologies and purpose

- Activated Carbon Reduces chlorine, organics, and tastes & odors
- <u>Catalytic Carbon</u> Reduces chlorine and chloramines from water, organics.
 - Carbon improves taste and odor
 - Contact time with carbon is important. The longer the water is in contact with carbon the better the removal of containments
- <u>Sediment Filtration</u> Removes solids from the water. The smaller the number (microns) the better the filtration
- lon exchange (cationic for water softening) Removes Ca & Mg from water and replaces with sodium or hydrogen ions. Prevents temporary hardness.
- <u>Polyphosphates</u> Scale inhibitor for temporary hardness (limescale, calcium bicarbonate). Sequesters (binds) to calcium and other hardness ions - good up to 10 grains hardness. Not recommend when water is over 150° F
- Reverse Osmosis Water purification process through a partially permeable membrane to separate ions, unwanted molecules, and larger particles from drinking water.

Traditional Approach to Hard Water Phosphates

- Not effective when water is over 10 grains
 (1 grain hardness = 17.1 mg/L Total Calcium Carbonate Hardness)
- Increased bacterial growth in plumbing and equipment
- •Less effective over time; reverts from poly to orthophosphates
- •May give water a metallic taste under certain conditions.
- •Always being released in cartridges. When equipment is not being used, the phosphates will release at an initial higher concentration upon water demand, thus impacting beverage quality.
- •"Corrosion inhibitor" means permanent scale.
- Starts to breakdown in water temperatures above 150 degrees
- Ruins carbonation in soda3M Website

Polyphosphate treatment works best for soft to moderately hard water applications such as for ice or coffee but becomes less effective in very hard water areas and for applications such as Espresso or Steam where other technologies such as ion exchange or reverse osmosis will be required.

Traditional Approach to Hard Water

Ion Exchange

- Exchanging Calcium and Magnesium ions for sodium and Hydrogen Ions
- Soft water is corrosive water
- Bypass needed for taste and corrosion control
- Capacity and Size
- Expensive and environmental issues
- Adds .79 ppm of CO2 for each ppm of sodium bicarbonate.
- Steam is condensed, carbon dioxide lowers pH and Increases hydrogen ion concentration

| Water Hardness Scale | | | | | |
|----------------------|----------------|-----------------|--|--|--|
| Grains/Gal | mg/L & ppm | Classification | | | |
| Less than 1 | Less than 17.1 | Soft | | | |
| 1 – 3.5 | 17.1 - 60 | Slightly Hard | | | |
| 3.5 - 7 | 60 - 120 | Moderately Hard | | | |
| 7 - 10 | 120 - 180 | Hard | | | |
| Over 10 | Over 180 | Very Hard | | | |

Rational Installation Book pg 18

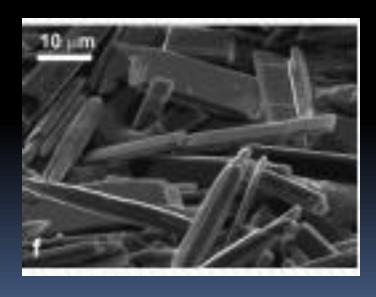
- Water treatment:
- Treated water with a water hardness less than 5 gr/gal must not be supplied, because such water can react aggressive and corrosive which can reduce the life cycle of the unit.

Reverse Osmosis

- •Space: Need an area to accommodate storage tank, pretreatment(Sediment and Carbon)
- •Time: Long process to produce 1 usable gallon
- •Waste: Use 2-3 gallons of water to make (1) gallon of RO water
- •"Aggressive water" means corrosive water. Post filter needed to raise pH.
- •TDS: Some level is needed for the equipment to function properly

21st Century Approach to Hard Water Nucleation Assisted Crystallization

- NAC (Nucleation Assisted Crystallization) is the transformation of Calcium and Magnesium hardness into non-soluble micro crystals.
- Example of NAC-<u>Instant Ice! (Super-cooled water nucleation) –</u>
 <u>YouTube</u>



| Hard Water contains salts of | | | | |
|--------------------------------|---|-------------------------------|--|--|
| Cations | | Anions | | |
| Ca ²⁺ | + | HCO₃⁻ | | |
| Mg ²⁺ | | Cl- | | |
| Fe ²⁺ | | SO ₄ ²⁻ | | |
| | + | SiO ₂ | | |
| | | PO ₄ | | |
| Non-bicarbonate Water Hardness | | | | |

Benefits of NAC

- 1. Descaling
- 2. Prevents scaling
- 3. Biocides
- 4. No TDS Change
- 5. pH NEUTRAL
- 6. No tradeoffs
- 7. Green Technology

NAC applications

















Water Problems and Treatments

| Contaminants | Media Used | Model | Bed Vol/hr |
|---|-------------------------|--------|---------------|
| Acidic Water | Trappsorb | TRS | 10 |
| Ammonia | Trappsorb/ZS | TRS | 10 |
| Arsenic | Titansorb/FL/KL | TS | 25/20/15 |
| Barium | Trappsorb | TRS | 10 |
| Cadmium | Ferrolox | FL | 20 |
| Chlorine | Catalytic Carbon | CC | 30 |
| Chloramine | Catalytic Carbon | CC | 30 |
| Colour | Catalytic Carbon | CC | 20 |
| Chromium | Ferrolox | FL | 20 |
| Copper | Ferrolox/CC | FL/CC | 20/10 |
| Fluoride | Catalytic Carbon/TRS | CC/TRS | 20/10 |
| Iron | Katalox-Light | KL | 20 |
| Hydrogen Sulfide | Katalox-Light | KL | 20 |
| Bacteria & Virus | Katalox-Light | KL/CC | 20/15 |
| Lead | Filtersorb Sp3 | SP | 333 |
| Nitrates | Nitrotrapp | NT | 60 |
| Manganese | Katalox-Light | KL | 20 |
| Mercury | Catalytic Carbon | CC | 15 |
| Molybdenum | Ferrolox/TS | FL | 15 |
| Odors | Catalytic Carbon | CC | 20 |
| Turbidity & Cloudiness | Crystolite | CR | 20 |
| TSS & Trace elements | Zeosorb | ZS | 20 |
| Radium | Titansorb | TS | 20 |
| Selenium | Titansorb | TS | 20 |
| Phosphates | Ferrolox | FL | 15 |
| Silicates | Trappsorb/ZS | TRS | 10 |
| Sulfur | Catalytic Carbon | CC | 20 |
| Uranium | Titansorb | TS | 20 |
| Scale Prevention (Cations) | Filtersorb SP3 | SP3 | 333 |
| Scale Prevention (Cations & Anions) | Filtersorb CT | CT | 250 |







Site Survey

| | Site and Contact Information | | | | |
|----------------|------------------------------|----------|---------------|----------|------|
| Site Name: | | Address: | City: | State: | Zip: |
| Contact Name: | | Email: | Phone # | Phone # | |
| | | Equipme | ent list | | |
| Equipment Type | Manufacturer | Model | Current Water | r System | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| TDS: | pH: | Total Hardness: | | Calcium Hardness: | | |
|-----------------|-----|-----------------|-------------|-------------------|--------|-------|
| Alkalinity: | | Silica: | Phosphates: | | Chlori | ides: |
| Total Chlorine: | | Free Chlorine: | | Chloramines | : | |
| Total Iron: | | Copper: | | Sulfates: | | |
| Nitrates: | | Nitrites: | | | | |

Notes:

Mail Water Sample to

ScaleXPro

4613 E. Ivy St, Ste 101

10/19/2021, 6:03 PM

SCALEXPRO

WATER

ScaleX Pro

4613 E Ivy St Suite 101

Mesa, AZ, 85205 United States 4802387429 murphy@scalexpro.com

tap

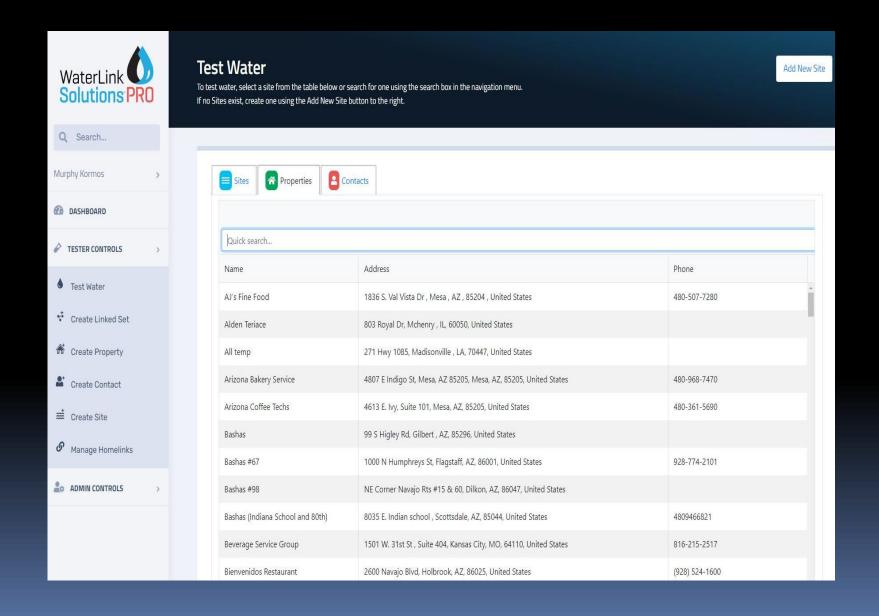
Media Solution

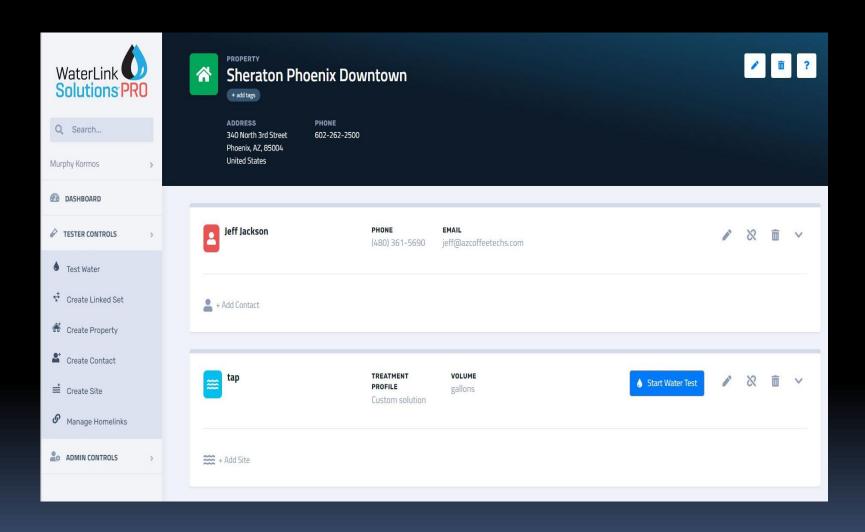
Sheraton Phoenix Downtown

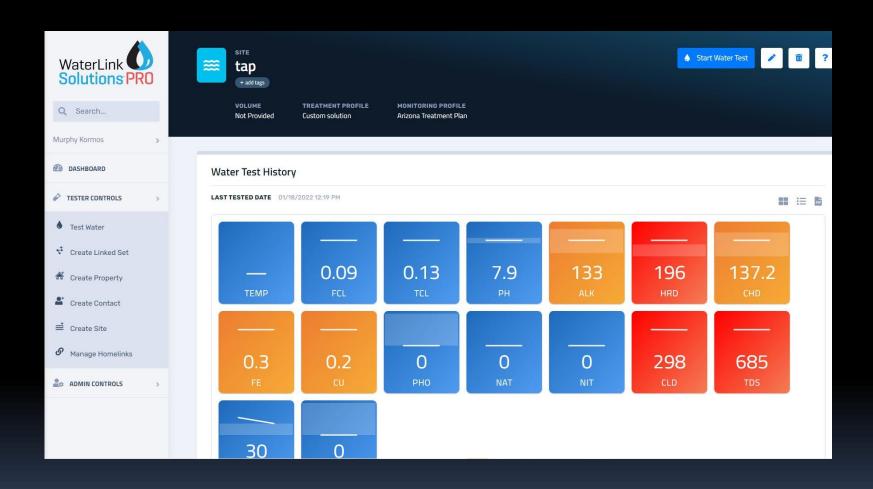
340 North 3rd Street Phoenix, AZ, 85004 United States 602-262-2500

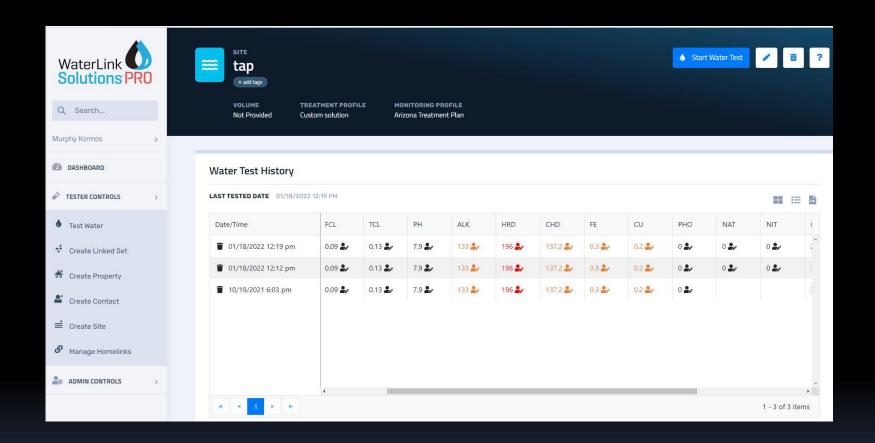
Measurements

| Test Factor | Ideal Range | Result | Source |
|------------------------|-------------|-----------|--------|
| Free Chlorine | 0 - 0 | 0.09 ppm | 2, |
| Total Chlorine | 0 - 0 | 0.13 ppm | 2. |
| pH | 7.2 - 8.5 | 7.9 | 2 |
| Alkalinity | 80 - 180 | 133 ppm | 2. |
| Total Hardness | 51 - 171 | 196 ppm | 2 |
| Calcium Hardness | 51 - 171 | 137.2 ppm | 2. |
| Total Iron | 0 - 0 | 0.3 ppm | 2. |
| Copper | 0 - 0 | 0.2 ppm | 2. |
| Phosphate | 0 - 10 | 0 ppb | 2. |
| Chloride | 0 - 30 | 300 ppm | 2. |
| Total Dissolved Solids | 50 - 180 | 685 ppm | 2 |
| Silica | 0 - 30 | 40 ppm | 2 |









Capacity of Filters

- Two Capacity Types with Filters
 - Hard Capacity is based on water softener technology. This capacity is a true capacity of a filter.
 - Soft Capacity is based on carbon technology.

BWT Bestmax XL



| Espresso Equipment (with steam) | | | | | |
|---------------------------------|----------------|------------------|--------------------|---------------------|--|
| nnm C-CO | Total hardness | Blend Setting | Filter capacity in | litres (US Gallons) | |
| ppm CaCO ₃ | in US GPG | | M | XL | |
| 120 | ≤ 7 | 3 | ≥ 3855 (≥ 1018) | ≥ 6140 (≥ 1622) | |
| 171 | 10 | 3 | 2700 (713) | 4300 (1135) | |
| 205 | 12 | 2 | 2040 (538) | 3250 (858) | |
| 240 | 14 | 2 | 1750 (462) | 2785 (735) | |
| 291 | 17 | 1 | 1290 (340) | 2060 (544) | |
| 428 | ≥ 25 | 1 | ≤ 880 (≤ 232) | ≤ 1400 (≤ 369) | |

| | Total hardness | Blend | Filter capacity in | litres (US Gallons) |
|-----------------------|----------------|---------|--------------------|---------------------|
| ppm CaCO ₃ | in US GPG | Setting | М | XL |
| 120 | ≤7 | 3 | ≥ 4625 (≥ 1221) | ≥ 7370 (≥ 1950) |
| 171 | 10 | 3 | 3240 (856) | 5160 (1365) |
| 205 | 12 | 3 | 2450 (648) | 3900 (1032) |
| 240 | 14 | 3 | 2100 (556) | 3340 (884) |
| 291 | 17 | 3 | 1550 (410) | 2470 (324) |
| 428 | ≥ 25 | 3 | ≤ 1055 (≤ 279) | ≤ 1680 (≤ 445) |

BWT Bestmax XL

What's inside BWT Premium XL Filter?

Activated Carbon-removes chlorine and bad taste and odor. If chloramines are present, you need catalytic carbon to remove them effectively. The more contact time the water has with carbon the better the filtration.





Sediment Filter- removes particles from water. The smaller the micron the better the filtration







3M B195-CLS



Catalytic Carbon Block



Sediment Filter



Ion Exchange (Cation Water Softener)



Breakout of components

Everpure 7FC







| Brand | Item Number | Stated Capacity | Technology used | Flow Rate |
|----------|----------------|---------------------------|--------------------|-----------|
| BWT | Best Max XL | 1,135 gallons bypass 3 | Ion Exchange | 1.0 gpm |
| 3M | B195 | 1,249 gallons | Ion Exchange | 0.5 gpm |
| Everpure | 7FC | 25,000 gallons | Capacity | 2.5 gpm |



COMBI OVENS PHOENIX, AZ







January 12, 2019

January 17, 2019

January 30, 2019

Added our duplex rack and (2) 20" special filters to this equipment. They we about to put a new RO system on because of the ongoing scale issues, which would have also caused further corrosion. This combi oven is 16 months old and operates 20 hours per day, 7 days a week. The racks were falling off and needed to spot welded. The previous recommended treatment (see photo to the right) ended up causing corrosion within 6 months. Upon contacting the manufacturer for warranty parts and service, ASU was told the water is corrosive and the warranty is void. No water testing provided from the manufacturer.

Only the special filters using NAC technology were used (NO LIME DE-SCALER) ASU, Sodexo, Aramark and Miner are all closely watching the progress and a impressed and with seeing the product is work before their eyes.



From Alto-Shaam Operator's manual

[&]quot;Even water, particularly hard water that contains high to moderate concentrations of chloride, will cause oxidation and pitting that result in rust and corrosion."



COMBI OVENS OLD EL PASO

Tamales, Mesa, AZ











Water test Results

TDS:567 ppm

Free Chlorine: .82
Total Chlorine: .82

pH: 7.6

Alkalinity:129 ppm

Total Hardness: 246 ppm(14.38 grains)

Chlorides:160 ppm

Silica:20 ppm

Filter system installed July 12, 2021. Photos 2/1/2022

Ice Equipment Common Issues



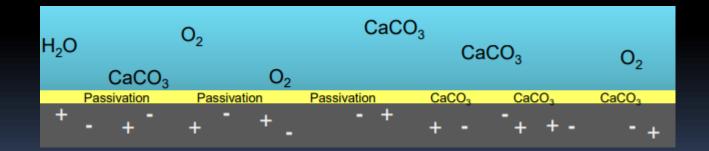






NAC vs. Polyphosphates for Ice

- Technology Threshold for hardness
- Taste
- Consistency
- Bacteria
- Corrosion Control



OXIDICE

- Reduces ice machine maintenance
- Fits any sized machine
- No chemicals. Nothing to fill or recharge



| OXIDICE SIZING CHART | | | | | |
|----------------------|-----------------------|------------------------|------------------------------|--|--|
| Light Color | Normal Environment | Extreme Environment | Run Time Every 10 Minutes | | |
| Off | NA | NA | Off | | |
| Yellow | < 400 lbs | NA | 1 | | |
| Green | 400-600 lbs | < 400 lbs | 2 | | |
| Blue | 600-1000 lbs | 400-600 lbs | 4 | | |
| Purple | < 1000 lbs | < 600 lbs | 7 | | |

Side by Side Comparison Standard Mfg. Recommendation vs. NAC



- -- Our research shows that 60% 65% of service calls for kitchen equipment are related to scale issues.
- -- Typically, we see significant scale peeling in 3 4 weeks
- ScaleX Pro filter not only preventsscale it helps *REMOVE* existing scale





Quick Change and Drop-in

| r | | 2 | | 7 |
|---|---|---|---|----|
| | | n | | |
| u | • | | _ | ıa |

| Genera | |
|-----------|---|
| Item# | Item Description |
| SXP-10GCR | 10" Game Changer filter |
| SXP-12GCR | 12" Game Changer filter |
| SXP-14GCR | 14" Game Changer filter |
| SF-10RC | Special Filter 510 |
| SF-20RC | Special Filter 520 |
| SF-10RC-N | Special Filter 510 Everpure head |
| SF-20RC-N | Special Filter 520 Everpure head |
| SXP-10GCP | 10" Game Changer Plus filter |
| SXP-12GCP | 12" Game Changer Plus filter |
| SXP-14GCP | 14" Game Changer Plus filter |
| SXP-10TAR | 10" The Answer filter |
| SXP-12TAR | 12" The Answer filter |
| SXP-14TAR | 14" The Answer filter |
| SXP-10TAP | 10" The Answer Plus filter |
| SXP-12TAP | 12" The Answer Plus filter |
| SXP-14TAP | 14" The Answer Plus filter |
| | Drop in |
| SXP-1025 | 10" Slim line One and Done |
| SXP-2025 | 20" Slim line One and Done |
| SXP-1035 | 10" Slim line One and Done Plus |
| SXP-2035 | 20" Slim line One and Done Plus |
| SXP-1026 | 10" Slim line One and Done Catalytic |
| SXP-2026 | 20" Slim line One and Done Catalytic |
| SXP-1036 | 10" Slim line One and Done Catalytic Plus |
| SXP-2036 | 20" Slim line One and Done Catalytic Plus |



QL1 Single Head



QL2 Single Head



QL3 Single Head



Single Head

The 12" Fit QL1, QL2, QL3, QL3B, and Everpure manifold.

The 10" and 14" fit QL2 and QL3

Specialized

| Item# | Item Description | |
|------------|--------------------------------------|--|
| SXP-10ASR | 10" Activesorb quick change | |
| SXP-14ASR | 14" Activesorb quick change | |
| SXP-10CCR | 10" Catalytic carbon quick change | |
| SXP-14CCR | 14" Catalytic carbon quick change | |
| SXP-10SPR | 10" Filtersorb SP3 quick change | |
| SXP-14SPR | 14" Filtersorb SP3 quick change | |
| SXP-10CTR | 10" Filtersorb CT quick change | |
| SXP-14CTR | 14" Filtersorb CT quick change | |
| SXP-10CRR | 10" Corrtrapp quick change | |
| SXP-14CRR | 14" Corrtrapp quick change | |
| SXP-10KLR | 10" Katalox Light quick change | |
| SXP-14KLR | 14" Katalox Light quick change | |
| | Drop In | |
| CTS | 10" Slim line Titansorb carbon block | |
| SXP-1027 | 10" slim line Filtersorb SP3 | |
| SXP-2027 | 20" slim line Filtersorb SP3 | |
| SXP-1027BB | 10" big blue Filtersorb SP3 | |
| SXP-2027BB | 20" big blue Filtersorb SP3 | |
| SXP-1037 | 10" slim line Filtersorb CT | |
| SXP-2037 | 20" slim line Filtersorb CT | |
| SXP-1037BB | 10" big blue Filtersorb CT | |
| SXP-2037BB | 20" big blue Filtersorb CT | |
| SXP-1048 | 10" slim line Catalytic carbon | |
| SXP-2048 | 20" slim line Catalytic carbon | |
| SXP-1088 | 10" slim line Katalox Light | |
| SXP-2088 | 20" slim line Katalox Light | |
| SXP-1099 | 10" slim line Corrtrapp | |
| SXP-2099 | 20" slim line Corrtrapp | |

Treatment Guide

| | Quick Change | | | | | |
|------------------------|---------------------------|--------------------------------------|-------------------------------------|---------------------------------|--|--|
| | Answer | | | | | |
| Description | Chlromamines and Chlorine | Temporary Hardness Protection | Permanent Hardness | Raise pH, Alkalalinity, and TDS | | |
| Answer | Yes | 26 grain | No | No | | |
| Answer Plus | Yes | 15 grains | 250ppm silica, phosphates, sulfates | No | | |
| Answer Advantage | Yes | No | No | Yes | | |
| | Gamechanger | | | | | |
| Description | Chlorine | Temporary Hardness Protection | Permanent Hardness | Raise pH, Alkalalinity, and TDS | | |
| Game Changer | Yes | 26 grain | No | No | | |
| GameChange Plus | Yes | 15 grains | 250ppm silica, phosphates, sulfates | No | | |
| Gamechanger Advantage | Yes | No | No | Yes | | |
| Drop in Style | | | | | | |
| | | One and Done | 2 | X | | |
| Description | Chlorine | Temporary Hardness Protection | Permanent Hardness | Raise pH, Alkalalinity, and TDS | | |
| One and Done | Yes | 26 grain | No | No | | |
| One and Done Plus | Yes | 15 grains | 250ppm silica, phosphates, sulfates | No | | |
| One and Done Advantage | Yes | No | No | Yes | | |
| One and Done Catalytic | | | | | | |
| Description | Chlromamines and Chlorine | Temporary Hardness Protection | Permanent Hardness | Raise pH, Alkalalinity, and TDS | | |
| One and Done | Yes | 26 grain | No | No | | |
| One and Done Plus | Yes | 15 grains | 250ppm silica, phosphates, sulfates | No | | |
| One and Done Advantage | Yes | No | No | Yes | | |

One and Done



| Cap Color | Chlorine | Chloramines | Scale Treatment |
|-----------|----------|-------------|--------------------------------------|
| Grey | X | | 26 grains |
| Clear | X | | 15 grains/250 ppm permanent hardness |
| Black | X | X | 26 grains |
| Blue | Х | × | 15 grains/250 ppm permanent hardness |

OptiPure Quick Conversion





Filter will fit Optipure head after removing.

OR



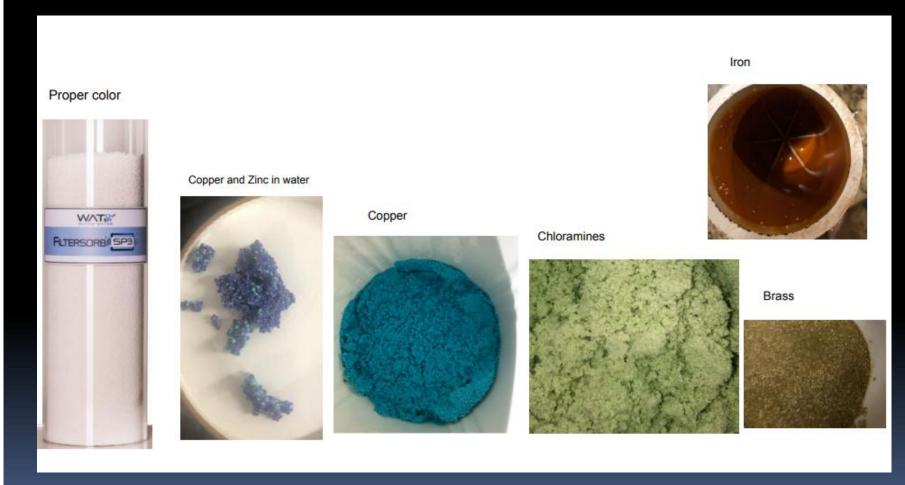








Ion Exchange Media Conditions As Observed by Color



Point of Entry

| ScaleX Pro 2 Series | | | |
|---------------------|-----|-----------|--|
| Description | GPM | Tank Size | |
| ScaleX Pro 22118 | 21 | 14x65 | |
| ScaleX Pro 22824 | 28 | 14x65 | |
| ScaleX Pro 23530 | 35 | 16x65 | |
| ScaleX Pro 24236 | 42 | 18x65 | |

Flow rate is based on 26 grains of hardness and 2" pipe. Systems can be designed up to 85 grains

Point of Entry

| ScaleX Pro 4 Series | | | |
|---------------------|-----|-----------|--|
| Description | GPM | Tank Size | |
| ScaleX Pro 45245 | 52 | 21x60 | |
| ScaleX Pro 47060 | 70 | 24x69 | |
| ScaleX Pro 48875 | 88 | 24x69 | |
| ScaleX Pro 411090 | 110 | 30X72 | |

Flow rate is based on 26 grains of hardness and 4" pipe. Systems can be designed up to 85 grains

Combi Oven

&

Large Systems

Combi Oven References

Arizona Bakery Sales & Service General Parts

4551 E. Ivy St #101 3150 N Freeway Industrial Loop #100

Mesa, AZ 85205 Tucson, AZ 85750

John Shaw-Owner Michael Angello-General Manger

<u>Johnshaw@abssimplythebest.com</u> Michael@gpservicedirect.com

480-968-7470 520-850-3188

www.abssimplythebest.com www.generalparts.com

Old El Paso Tamales Double Tree Hilton

730 E Brown Rd 5401 N. Scottsdale Rd

Mesa, AZ 85203 Paradise Valley, AZ 85250

Hector-Owner James Flint-Director of Facilities

480-844-0477 480-947-5400 Ext 3013

www.oldelpasotamales.com

Large Systems

Wild horse Pass Chevron Larry Miller Toyota

5139 E. Wild horse Pass Blvd 8633 W Bell Rd

Phoenix, AZ 85048 Peoria, AZ 85382

JD Saran-Owner Rick Depke-Service Director

480-717-7500 623-876-3400

JDSaran@tjoil.net rdepke@lhmauto.com

Stotz Equipment AM PM

11111 W. McDowell Road 2310 N 32nd St

Avondale, AZ 85392 Phoenix, AZ 85008

Glenn Yinger-General Manager Gina Gill-Owner

602-818-8096 602-619-3744

gyinger@stotzeq.com ginamgill@gmail.com

Ice Machine References

Ice Machine References

Houston Ice Chillmasters WaterTek

2429 Bissonnet #517 2010 E. University Dr, Suite 10 680 W. 92nd Street

Houston, TX 77005 Tempe, AZ 85281 Bloomington, MN 55420

Allen-Owner Pat-Owner Travis-Owner

(713)213-7433 (602)743-7700 (952)894-4430

allen@houstonicemachine.com pat@chillmasters.com Travism@watertek-group.com

Varitech Commercial Service F&E's Frozen H2O St Joseph's Hospital

1646 S. Research Loop 2442 Pricedale Dr 350 W. Thomas Road

Tucson, AZ 85710 Bogue Chitto, MS 36929 Phoenix, AZ 85013

George-Service Manager Steve Wallace-Owner Raymond Myers- Facilities

520-885-3405 601-669-0028 602-406-4638

solultions@varitechaz.com iceman.62@aol.com Raymond.myers@dignityhealth.org

Drip Coffee & Espresso References

Ronnoco Coffee, LLC Arizona Coffee Techs

1501 W. 31st St Suite 404 4613 E Ivy St # 101

Kansas City, MO 64110 Mesa, AZ 85205

Brad-Director of Service Operations Jeff-Owner

(816)215-2517 480-215-8653

btharp@beverageservicesbgroup.com jeff@azcoffeetechs.com

Red Diamond Coffee Decatur Espresso

400 Park Ave 905 South AL Davis Road

Moody, AL 35004 Harahan, LA 70123

Rodney Stevens-Service Manager Jimmy Walker-Owner

205-617-6481 504-733-9881

<u>rodneystevens@reddiamond.com</u> <u>jimmy@decaturespresso.com</u>

Orleans Coffee Kennedy Coffee Service

1001 Industry Rd STE A 510 Duignan Road

Kenner, LA 70062 Strawberry Plains, TN 37871

Mark Kennedy-Operations Manager Alan Kennedy-Owner

504-827-0878 865-250-1668

mark@orleanscoffee.com alan@kennedycoffeeservice.com

Water-Tek Mahaska

680 W. 92nd Street 1407 17th Avenue East

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First Choice Coffee Services

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Thank you!!!

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