

Cleaning Your Filter

Regular Maintenance

Filter Cartridges should be surface cleaned with “HT Instant Cartridge Cleaner” every 2 to 3 weeks depending upon usage. This removes loose matter debris and minimizes the build-up of oils, minerals, and scale that could harm your spa equipment.

TO USE: Simply spray liberally on to pleats, wait 3 to 5 minutes, rinse thoroughly with a garden hose and replace. For best results, along with extending the life of your cartridge, it is best to use a hose attachment product like the “Aqua Comb”.

For spas with a skimmer basket we recommend using a “Filter Saver” to help prevent clogged baskets that could lead to damaging your filter and pumps.

Deep Soak Cleaning

Filter Cartridges should be deep soaked in a solution of water and “HT Filter Cleaner” each time you change the water in your spa. Deep soak cleaning helps remove body oils, grease, soap film, minerals, scale, etc. that will embed and get soaked into the pleats of your filter.

TO USE: Mix 8 oz. for every 1.25 gallons of water (5-gallon bucket requires 32 oz.) in a bucket large enough to fully immerse your filter cartridge(s). Always add “HT Filter Cleaner” to water, never add water to “HT Filter Cleaner”. Before placing the cartridges into the solution rinse off any loose debris. Allow filter cartridges to soak for 8 to 10 hours. Then remove cartridges, rinse thoroughly and allow them to fully air dry before replacing them into your spa.

RECOMMENDATION: Keep an extra filter cartridge on hand to use while cleaning the dirty filter. This allows filter pleats to breathe and extends the life of each filter.

Protecting Your Cover

To extend the life of your Vinyl Cover use “HT Cover Conditioner” every 3 months. Especially important for covers located in direct sunlight.



Instant Cartridge Cleaner Filter Saver Aqua Comb Filter Cleaner Cover Conditioner All Purpose Cleaner



Troubleshooting Guide

Problem	Most Common Cause	Proposed Solution
Cloudy Water	Dirty Filter Improper pH/Alkalinity High Bacteria Count High Calcium Level High Total Dissolved Solids Cosmetics or Oils	<ul style="list-style-type: none"> Clean filters or replace w/new filters Add HT pH Alkalinity Increaser or Decreaser Shock with appropriate Sanitizer Partially drain & refill your spa. Have water brought in or use your home's water softener if available. Totally drain and refill your spa Add HT Natural & Clear Use Sun Sorb to absorb oils
Brown Water	High Mineral Count	Add HT Stain & Scale or Protection Plus
Yellow Water	Low pH	Add HT pH/Alkalinity Increaser
Green Water	Algae Growth	Shock with HT Chlorinating Granules
Scum Line	Cosmetics or Oils in Hot Tub	<ul style="list-style-type: none"> Clean Shell with SpaEase All Purpose Cleaner Remove & Clean Filters Add SpaEase Natural & Clear Use Sun Sorb
Musty Odor	High Bacteria Level Algae Growth	<ul style="list-style-type: none"> Clean the underside of your cover w/HT All Purpose Cleaner Shock water with Sanitizers. If growth remains, drain hot tub using HT Jet Line Cleaner
Foaming	Soft Water Detergents in Swimwear Body Oils and/or Cosmetics High TDS Level High pH Level Poorly Formulated Chemicals High Powered Jets w/Air Open causing foam.	<ul style="list-style-type: none"> Add HT Liquid Calcium to harden water Add Foam Away, rinse swimwear before entering tub Add Foam Away and shower before entering tub Fully drain your spa and refill with new water Add Foam Away and add pH/Alkalinity Decreaser Discard chemicals purchased from mass merchants Add Foam Away prior to using spa. This will help but may not fully resolve issue.
Low Jet Pressure	Dirty Filters	<ul style="list-style-type: none"> Remove and clean filters. Replace if necessary.
Water Takes Long to Heat	Maybe Calcium Deposit Buildup on Heater Element	A new heater will correct the problem and provide a higher efficiency including lower electric bills

HT Chemicals are exclusively sold through our approved dealer network that are trained to answer all your questions on spa usage and water chemistry.

MAKE CERTAIN TO FOLLOW ALL INSTRUCTIONS IN YOUR HOT TUB MANUAL FOR SAFE USE



Chemicals & Filters

Caring for Your Hot Tub



HT Chemicals are Formulated to Save You Money and Make Caring for Your Spa Easy!

They are specifically formulated for hot tubs (not swimming pools) providing the best results for hot water environments. They include the highest concentration of active ingredients and assure a consistent formula in every bottle. This saves you money and minimizes frequency of usage.



- Sarting Up Your Spa**
- Balancing Your Water**
- Weekly Maintenance**
- Proper Use of Sanitizers**
- Drain & Fill Your Spa**
- Cleaning Your Filter**

Starting Up Your Spa

1. Make certain power is off, spa shell is clean, and then add water. To lessen minerals it's recommended to use a "Sediment Pre-Filter".
2. Add 8 oz. of Stain & Scale for every 350 gallons of water during fill up.
3. When the spa is full, turn on the power, set your desired temperature and check that the filter cartridge(s) are clean and properly installed.
4. Now while the water is still cool, test the hardness level and add HT "Calcium Increaser" if necessary.
5. Once water reaches a minimum of 95 degrees test pH and Alkalinity levels and if needed adjust with HT Ph/Alkalinity Increaser or Decreaser.
6. Select your Sanitizer choice and add in according to instructions.
7. Install a "Mineral Purifier Stick" in your filter area to reduce sanitizer usage by 50%.

Weekly Maintenance of Your Water Chemistry

1. Test pH, Alkalinity, Sanitizer, and Hardness levels regularly, especially on new spas.
2. Add 2 oz. (4 Spoons) of "HT Natural and Clear" each week.
3. Add 2 oz. of "HT Protection Plus" each week. If your water has a high mineral count use Stain & Scale in place of Protection Plus.
4. Add Sanitizer as required per instructions.
5. Remove & clean filters using "HT Instant Filter Cleaner" every 2 weeks. See "Proper Filter Care" for maintaining and caring for your filters.

Cleaning the Plumbing Lines

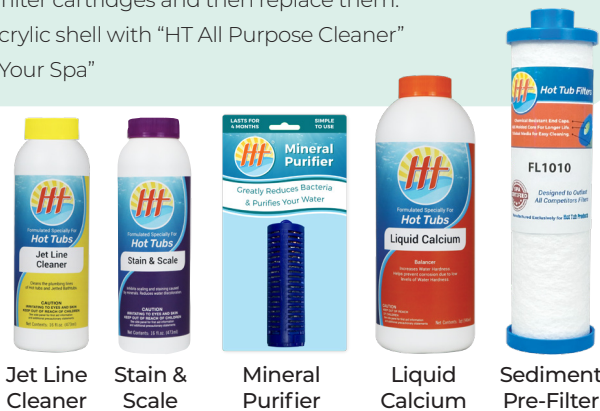
Plumbing lines should be cleaned at least once a year or whenever a spa is drained and left empty for a minimum of 90 days. It's also a benefit to do it on new spas within 90 days.

1. Before draining (ideally when water is warm) **REMOVE ALL FILTERS** then pour in 16 oz. of HT Jet Line Cleaner.
2. Turn on all pumps for 20 minutes, open all air valves. Then turn all pumps off and let the water sit idle for about 45 minutes. Then turn all pumps on again for 5 minutes with air valves open.
3. Turn off Power, Drain the water, Clean the Shell, Replace the Filter Cartridges, and Restart Your Spa.

Properly Draining and Refilling Your Spa

1. Turn off power to your spa and begin to drain either by "Gravity Feed" or using a submersible pump which will quicken the draining process.
2. Remove and clean filter cartridges and then replace them.
3. Clean the interior acrylic shell with "HT All Purpose Cleaner"
4. Go to "Starting Up Your Spa"

RECOMMENDATION: Spa water should be drained and refilled every 3 to 4 months depending on usage. To accurately know when to drain use TDS Test Strips.



Balancing Your Water

Keep pH between 7.2 and 7.8, alkalinity between 80-150 ppm, and calcium hardness between 150 and 250 ppm

Raising pH/Alkalinity

1. For every 500 gallons of spa water
 - a. If pH is between 6.8 – 7.2 add one oz (2 spoons). of "HT Ph/Alkalinity Increaser"
 - b. If pH is less than 6.8 add two oz.
2. Run filtration pump 1 to 3 hours, retest and repeat if necessary.

Lowering pH/Alkalinity

1. For 500 gallons add 1/2 oz. of "HT Ph/Alkalinity Decreaser"
2. Run filtration pump 30 minutes, retest and repeat if necessary. For best results dissolve Ph/Alkalinity Increaser or Decreaser in a small bucket of spa water and then pour back into the spa.

Lock Your pH & Soften Your Water

Once your water has reached temperature and your pH and Alkalinity is properly balanced you can eliminate the need to constantly keep adjusting the pH and Alkalinity by adding HT pH Hold & H₂O Softner. It also provides the benefit of softening your water. One dosage will last until you drain and refill your spa.

Raising Hardness (Important)

To raise the hardness of your water just 45 ppm add 3 oz. of "Liquid Calcium" for every 300 gallons and then allow filtration pump to run for 30 minutes. Retest and add more if necessary. Once you adjust the Hardness it will last until you drain your spa

Water Clarity

To maintain crystal clear water, add 2 oz. of "Natural & Clear" weekly. If foaming occurs, Spray "HT Foam Away" directly into the foam. "Sun Sorb" sponges are also very effective in helping to eliminate foam and provide added water clarity.



Proper Use of Sanitizer

Chlorine

ON INITIAL FILL

1. Turn on jet pumps and add 1.5 oz. of "HT Chlorine Granules" for every 300 gallons of water. Wait 5 minutes and add 2 oz. of "HT Oxy Shock" and activate jet pumps for 5 minutes then allow filtration pump to remain active.

REGULAR MAINTENANCE

2. Add 2 oz. of "HT Oxy Shock" after using your spa with up to 1-2 adults. Add 1 ounce for each additional user.
3. Add "HT Chlorine Granules" as needed to maintain a 3 to 5 ppm chlorine residual. This can be reduced to 1 to 3 ppm if you are using a "HT Mineral Purifier Stick". Test your water daily until you learn your water's chemistry.

Bromine Tablets

ON INITIAL FILL

1. Place one "HT Bromine Tablet" per every 100 gallons of water (3 Tablets for a 300-gallon spa) into "Bromine Floating Dispenser". Open Floating Dispenser wide open until proper Bromine Level is achieved then reduce it depending on the size of the spa and frequency of usage and whether you are using a Mineral Stick. Bromine level of 3ppm could take 7 to 10 days though it is safe to use within 48 hours.
2. To raise the ppm quicker add 4 oz. of "HT Brom Bank" for every 300 gallons of water. Wait 5 minutes and add 2 oz. of "HT Spa Activator" then activate jet pumps for 5 minutes, then allow filtration pump to remain active.

REGULAR MAINTENANCE

3. Add 2 oz. of "HT Activator" after using your spa with 1-2 adults and 1 oz. more for every additional user.
4. Replenish your Floating Dispenser so that the tablets never fully dissolve. They should last for about 5 to 7 days. If they fully dissolve, repeat steps 1 & 2.
5. Regularly test and maintain a bromine level of 3 to 5 ppm. This can be reduced to 1 to 3 ppm if you are using the "HT Mineral Purifier Stick".

