

SOLAVITE

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SOLAVITE is not a specific water treatment. It is in reality a complementary treatment for water already chemically treated and for water which are “in natura” laden with mineral salts.

For water already chemically treated, since at water treatment plants, upon preparation of the potability of the water, it is necessary to add various chemical products – all of which are mineral salts- and the dirtier the water, the greater the amounts of mineral salts will be added. The harder the water becomes, the more incrustations are formed inside the pipes.

Many people think that the incrustations are only deposits, or decantations. This is not so. If this was the case, there would be incrustations only on pipes in the horizontal position, never vertical. However, calcareous incrustations (formed by mineral salts) are formed in pipes whether horizontal or vertical.

This is because the incrustations are not simply deposits. They are the result of a differentiation of magnetic polarity (attraction polarity) between the iron pipes and the mineral salts existent in the water. The iron pipes have a different polarity, or have different poles relative to mineral salts. Unlike poles attract each other, especially when there is a paramagnetic field (such as there is in iron or plastic).

If the water passes through a diamagnetic field (such as that of copper and formerly of lead) there is no attraction upon the molecules of the mineral salts.

Lead. It is impossible to use because it is non-existent on the world market and, if it were to exist, it causes problems to human health (lungs).

Copper. It is used, especially in hot water installations, but is not recommended for cold culinary water, due to the formation of “verdigris”, which also may cause health problems.

Plastic Pipes . Do not suffer from calcareous incrustations (mineral salts) and have deposits of slime, mud, clay, etc., and this is receive the neme of crystallization (in Brazil). Plastic pipes are a weak paramagnetic for they are a derivative of petroleum, which is a high paramagnetic. Since it is a weak paramagnetic, the scales build up in plastic pipes.

It is worthy of mention that the formation of slime may be harmful to health since it is a propitious “habitat” for the development of microbe and bacteria.

Remember! SOLAVITE is only a catalyst (or in other words a device with catalytic cells). A catalyst is an agent which intervenes in a reaction without altering its substance. Catalysts in general (of different types) are used in the chemical industry, the rubber industry, the petroleum industry, i. e. the extraction of gas from petroleum. Bear in mind that anyone who succeeds in ‘inventing’ any catalyst, keeps his secret very rigorously. It is very difficult (even with the aid of modern computers) to discover how any particular catalyst has been manufactured. It is considered a “closed world” by those who possess such secrets. At international Conferences on Catalysts, each one tells what his catalyst can do, but no one reveals the “crucial key” to the secret.

SOLAVITE is a physical catalyst, highly diamagnetic, whose function is to interrupt the molecular bonding of ferrous and alkaline salts. When the water is forced (the velocity of the water is important); It is the velocity which provokes, by means of electrostatic induction, the formation of a diamagnetic field)... when the water is forced by the catalytic cell (we will call it catalyst) the inversion of the polarity of the salts is produced. This inversion of polarity is neither ionic nor cationic. Nor does it soften the water, or in other words, it does not take the hardness from the water. It is merely an inversion of the magnetic attraction. Thus, only physical changes are carried out. It is an anisotropism of molecules. An anisotropic effect. From the chemical point of view, the water undergoes no alteration whatsoever. The chemical analysis made before the contact with the Solavite catalyst is identical of Analysis made after the device. There is no change in the physico-chemical parameters of the water. When the water is forced past the Solavite catalyst, the mineral salts undergo an inversion of their molecular magnetic polarity and so take on a polarity which is equal to that of iron.

Equal poles repel each other. Therefore, the mineral salts contained in the water which come into the pipes no longer form incrustations and the mineral salts which already formed incrustations begin to undergo the same magnetic polarity inversion and begin to fall away from the plumbing. The hard and longer the danger of stoppage of the plumbing.

Obviously, the existing encrustations will exist (almost imperceptibly to the naked eye), through the faucets, outlets, and flush pipes of boilers. There is no danger for someone drinking this water since there are mineral salts which naturally exist in the water.

SOLAVITE does not provoke corrosion or electrolysis. It does prevent corrosion formed by electro-chemicals or galvanic or even electrolytic action. The essential function of Solavite is to clean the water channels (boilers, refrigeration circuit, condenser, compressor, in summary, every pipe through which water passes) and to prevent the formation of new incrustations, without provoking corrosion.

Besides this specific function, Solavite promotes other beneficial results (which we might call accidental):

1. It is not necessary to soften the water.
2. Even in hard water, after passing through the Solavite, soap will suds up and the consumption of soap will decrease. Explanation for this phenomenon is the molecules of the salts are dispersed without the hardness of the water being removed. (It is as though there were a very closely woven fabric in which holes have been poked).
3. Remember this, Solavite does not soften the water, but it disperses the molecules of the salts.
4. And so, the flavor and the odor of the water improves.
5. The taste and smell of chlorine is reduced, without destroying the beneficial effects of the chlorine.
6. Unpleasant odors are noticeably reduced and, frequently disappear altogether.
7. You can compare the water in your house to that of your neighbor, as long as he doesn't use Solavite.
8. From the sanitation point of view, it is very important, since as the pipes become clean, the proper "habitat" for the development of microbes and bacteria disappear. Solavite is not a germicide or bactericide, but as it eliminates their "habitat", it causes the extinction of the same, for germs which are unable to reproduce, die. Reproduction of germs is by means of schizogony. They need a suitable environment for their multiplication.

Analyze some water before Solavite and analyze some after Solavite and verify the difference in relation to the germs and bacteria. Remember that the time and distance from the location of the installation of the catalyst are necessary factors to take into account in cases of microbiological analysis.

All our clients in the field of Food Products are more and more satisfied with the results obtained by Solavite in the sector of sanitation.

It is very important to note that Solavite removes incrustations of any type inclusive SiO_2 , (Except Fe_2 and Fe_3 and Mng (Manganese) , Fe_2O_3 , Fe_3O_4 etc.

Above all, the maintenance is simple. You merely clean the cells, every 15 to 30 days, depending on the type of water, and replace with a new cell every twelve months. In the case of diesel fuel, replace every 6 months, heavy oil, type BPF-BTE for boilers and furnaces, the life the cell is 28 to 30 days.

VERY IMPORTANT OBSERVATION: DO NOT INSTALL SOLAVITE IN:

1. Glue or Solder Factories. If SOLAVITE is installed for water used in the manufacture of GLUE or (SOLDER), the glue will not stick.
2. Do not install near magnetic switches, since they will burn out. always install at least 10 meters away, minimum.

ALL LIFE NEEDS WATER AND ALL WATER NEEDS SOLAVITE.

Benefits of Solavite in general: homes, apartments, buildings, schools, cities, hotels, restaurants, etc.

1. Inhibits incrustation in pipes and removes scales if pipes when incrustated.
2. Extends the life span of pipes. Instead of replacing them every 10-15 years, they last 80-100 years with proper maintenance of cells.
3. Eliminated the need for softening of water with salt and chemicals.
4. Environmentally friendly.
5. As the pipes become clean, the consumption of gas, oil, electricity used in heating of water will be reduced. **Note:** 1mm of scales (incrustation) requires 15% more fuel consumption.
6. Improves the taste of water.
7. Does not change or modify the water chemically.
8. Faucets, mechanical valves and fixtures last longer because they remain without calcium deposits.
9. In dishwashers and washing machines it lowers the consumption of soap, water.
10. Prolongs the life of the pipes, valves, flush pipes, boilers, compressors, condensers, refrigeration towers and circuits.

BOILERS

Demineralization is the best treatment for removing mineral salts from water. Major obstacle; the price. The price is at least 50 times more expensive than Solavite. The majority of industries do not use demineralizers because of high cost.

There is softening treatment (salt) for water, to soften the hardness of the water. This is very expensive as compared to Solavite, and it does nothing to solve Silica (SiO_2) incrustations.

Solavite treats scale of Silica (SiO_2).

The use of chemical desincrustation treatments promotes the following problems:

1. **Corrosion**. Every chemical desincrustation treatment is corrosive, just like every anti-corrosive treatment is incrustative. This is a vicious circle. This is physical and chemical law. No one can argue with this. This is why, when a desincrustation treatment is carried out, the manufacturer or distributor of chemical products required to always a layer of incrustation, (obviously, they would not confirm this.)
2. **Fuel**. When you use a chemical desincrustation product, you raise the specific weight of the water (increase the density of the water) . If you have to heat this solution , you will need more fuel which will increase your costs. You are wasting money and resources.
3. **Contaminated Effluent**. When you use chemicals in your boiler, you cannot drain the discharged water into the drain because the effluent is not ecologically safe. It kills fish and polluted the water.
4. **Labor**. When you use chemicals, you need labor to install, flush, and observe the process of treatment. Improper dosage can cause many expensive problems.
5. **Price**. – The cost of chemicals is very high.
6. **Satisfaction**. – It is very rare to find customers who are satisfied using chemical desincrustation products. There are chemist and engineer who prefer not to use any chemicals whatsoever and replace pipes and equipment instead.

SOLUTION – SOLAVITE INSTALLED IN BOILERS.

1. **Density of Water**. Does not change the density of water. This lowers fuel cost.
2. **Labor** . Device is automatic and does not require additional labor.
3. **Effluent** . Waste water can be drained directly into the sewer without endangering the ecology.
4. **Pipes & Boiler**. The boiler tubes and the vapor lines are without incrustation. This increases the efficiency and decreases the cost of fuel.
5. **Saving**. No need to spend money on chemicals and salt.
6. **Maintenance**. This task becomes simple. Clean the cells every 15/30 days, flush for 5 seconds each hour and replace the cell at proper intervals.

SAVING:

In chemical products and salt,
In fuel,
In conservation of pipes, boilers, vapor lines,
In labor,
In drainage of discharged water,
Etc.

SOLAVITE IN REFRIGERATION CIRCUITS

In refrigeration circuits, Solavite cleans and keeps clean:

1. all the tubing of the circuit.
2. the compressor
3. condensers.
4. The heat exchangers. No necessary to use anything else besides Solavite

OBSERVATION:

For example, if you install a Solavite unit, at a hotel for the general treatment of water, you would not need to install a separate one for the boilers, but this same unit would not treat the refrigeration circuit for the reasons which we will explain in the installation section. A separate Solavite unit would have to be installed in the refrigeration circuit.

FOOD PROCESSING FACTORY

In food processing factories, besides boilers, cooling circuits, etc., the general treatment of water with Solavite, will result in a greater biological stability of the water. One would do well to make a microbiological analysis of the water before and another after Solavite and let the users themselves report the results.

PLASTICS FACTORY

In plastics factories, besides the above mentioned applications, there is another enormous problem: the clogging of the injection machines by calcareous incrustations. The results on these machines can be observed right after installation, within 24 hours.

TEXTILE FACTORY

In Textile Factory, besides boilers, cooling circuits, etc., Solavite is applied quite nicely to:

1. **Washing of textile.** After installation of Solavite, even if the water contains a little rust, the rust will not stick to the Textile being washed, due to the polarity inversion of the molecules of the salts in water (caused by anisotropic effect). Besides smallest quantity of water, soap, having more suds, there is the conservation of the machinery.
2. **Humidification.** In textile industries, thread mills, there is a great need to maintain a certain degree of humidity, by means of tiny sprayers. It's happen that the orifices of the sprayer heads clog very easily. Solavite solves the problem.

3. **Dyeing**. When the textil is dyed and the water is hard, even slightlu hard, it is necessary to use chemical sequestrant in the water in order to separate the hardness of the water. There is an enormous expense in dyes and anilines. With Solavite, there is no need of isolators, nor to soften the water, and you can guarantee a saving of at least 5%, in dyes and anilines.

SAVING in Textile Industry:

Saving in sequestrante,
Saving in soap,
Saving in dyes and anilines,
Saving for having constant humidity,
Saving in fuel fire the boiler.

SOLAVITE FOR HEAVY FUEL OIL FOR BOILERS AND FURNACES.

In BPF and BTE oil, the results have been excellent.

They are as follows:

1. **Better combustion**, Therefore, it there is almost total burn, then the efficiency of the fuel is greater and better. This results in saving.
2. **Desincrusters** the oil lines (pipes) and prevents them from incrusting again. So, the loss in fuel is minimum. Result: saving.
3. **Clean injector nozzles** (jets). The boiler and furnace nozzles build up carbon and turn black. After 24 hours of using, the cleaning process can be verified by naked eye. Result : saving.
4. **Clearing of smoke**. Clearing of the black smoke which comes out of the stacks is easy to verify by observation. Just look at the smoke stack before and after installation of Solavite (24 hours after).
5. **Fuel saving**. The fuel saving is greater on boilers than on furnaces. The percentages vary from boiler to boiler and from furnace to furnace but the existence of saving can be guaranteed. Some company have recognized saving up to 8%.

SOLAVITE FOR GASOLINE – AUTOMOBILES AND TRUCKS.

Yes, here as wall we have extensive experience. Results are fantastic. What does Solavite do in gasoline?

It inverts the polarity of the hydrocarbons:

- cleans all the motor which already has carbon build-up and prevents new build-up of carbon.
- it extends the life of the motor,
- it cleans carbon from: valves, pistons, rings, cylinder heads, etc.

- it extends spark plug life by more than 50%, all the carbon goes out through the exhaust pipe instead of being sticky and hardening, it softens and is gradually expelled. Even the exhaust pipe becomes clean.
- It does not cause any corrosion,
- You can begin to feel the difference after only 35 miles,
- Solavite is not a gasoline saver, but as it begins to clean the motor, you will evidently begin to save less gasoline. It is as though the motor were new. A new motor uses less gasoline than an old one, because it has no carbon.

SOLAVITE FOR DIESEL CARS TRUCKS

- Improves combustion.
- Totally cleans carbon from the engine.
- Keeps the injector jets clean.
- Noticeably reduces black smoke, reduces air pollution.
- Improves power and life of the motor.
- And has shown a saving of more than 8%.(eight)

SOLAVITE FOR REDIATORS.

The Radiator apparatus is installed before or after water container. After 160 miles, flush out the water and check the residues that are expelled. You will note when the motor temperature is always stable and when you can open the radiator with a hot motor – very hot, and there will be no boil-over. You can open the cap without needing a rag for protection.

It cleans not only the radiator but also the entire cooling system of the motor. The water will no longer remain clean. What will remain clean is the motor and the cooling system of the motor.

WHAT IS NECESSARY FOR SOLAVITE WORK WELL

- 1st - Determine the correct unit for the existing flow.
- 2nd - Install the unit correctly.
- 3rd – Carry out the maintenance correctly.
- 4th - Replace the cells at prescribed intervals.

If the above mentioned items are observed, Solavite will function properly. Otherwise, it will not work.

POINT BY POINT EXPLANATION OF THE ABOVE ITEMS - WATER.

1st - HOW TO DETERMINE THE CORRECT UNIT.

- a. Ask the client for the consumption/hour or month of water. If you have this value, its easy to determine which unit is to be installed according to the consumption/hour (in liters) of water.

In factories, for boilers, cooling circuits, etc., the engineer and/or maintenance director have the data on consumption/hour.

In hotels, (or their equivalent), they will have the consumption/month on their water bills.

- b. Types of Units and Cells.

You have the list of units, with their respective flows. All you need to do is look at the flow column and see which is the required unit (see the Price List).

The smallest of our units for water is the R-2 (R= residence) and treats up to 250 l/h. It is enough small home. If it is a big house, with a very large water consumption, where you wash cars every day and water the garden every day, then the unit will be larger.

We have the R-3 which treats up to 400 l/h. from there, we have several types of units. On the list, we include up to 40,000 l/h (40 m³/hr). We can furnish units for any rate of flow.

Beside the R-2 and R-3, comes the CI-SIMPLE Cell, which treats up to 800 l/h each. They are used in units up to CI-7 (which has 8 CI-SIMPLE cells and is used for water flows of up to 6,400 l/h). The inlet and outlet of these units (up to CI-7) is 3" inside diameter. From 6,400 l/h on up, the diameter of the units (inlet/outlet) are greater: 4", 6", 8", 10" and 12". If a larger diameter is required, shunts are used with many branches to carry the flow. The cells are called CI-DOUBLE. Each one treats up to 2,000 l/h.

The calculations may vary somewhat in practice.

2nd . HOW TO INSTALL THE SOLAVITE UNIT CORRECTLY.

- a. In the first place, note that the CELL (S) must absolutely be installed in a North-South position of the compass. It is not the unit which must be North-South, but the cell.

Never install a Solavite unit without a **compass**. Remember that the geographic North-South is different from magnetic North-South.

The importance of this is the fact that Solavite uses the magnetic power of the earth.

Its is based on FARADAY's laws of magnetism: "Every substance, upon passing through a force field, will be diamagnetic or paramagnetic".

The force field of SOLAVITE is formed by the magnetic axis of the earth and the cell. The experiments of Faraday were confirmed by Joseph Henry, an American scientist, and the 1st director of the "SMITHSONIAN INSTITUTION".

You may, in certain cases, have a variation of up to 15 degrees in relation to the magnetic axis, either to the right or to the left by the compass.

- b. Insulate the unit. It is not that magnetism needs to be insulated.

The unit is insulated with plastic nipples, on both connections to avoid the union of two different metals. The Solavite units are made of aluminum, the cells are made of copper, insulated with plastic or rubber when the pipes are made of iron or other metal. Without isolation, this would cause corrosion by galvanic action or electric currents.

- c. **Distance**. Do not forget that Solavite is a catalyst which accelerates magnetic fields (catalyses the magnetic field of the earth and projects its force through the very liquid which continues its course) and as the water Solavite is felt after 5 meters from the point of installation of the unit. The 6 meters is not actual metric distance literally, but it is necessary for the water to flow 6 meters. You may install the unit near a compressor which you wish to disincrust and place a coiled five-meter length of rubber or plastic tubing between.

Do not forget the distance. It is just that, the incrustated pipes near the solavite unit will not disincrust, and if they do, it will take years.

- d. **Proper placement**. Solavite has no retroactive effect. It only works forward. So chose the location well, since only from that point on will the Solavite show results. In the case of boilers, where there is employment of steam, the unit may be installed in the make-up water (in Boiler).

For placement of make-up water only in cases where the replacement is less than 50% and observe the extension pipe install into the tank where the steam mixes with the make-up water.

In the case of cooling circuits, the Solavite is installed at the outlet of the flow to determine the correct unit will be 10/15% of the total flow of the circuit.

Do not clean the cooling tower at the time of installation of the Solavite unit. After 15 days you can wash the Cooling Tower using a get strong of water. (the hard scales will be almost soft)

3rd CARRY OUT THE MAINTENANCE CORRECTLY.

- a. Residential. After 3 months, test the water. If its taste is different or disagreeable, you have to clean the cell with vinegar (70%) + salt (30%). After cleaning, rinse in fresh water and replace the unit immediately.

If there is boilers in this system, it is advisable to flush at least every 15 days to lengthen the life of the boiler and remove the accumulated sediment.

- b. Hotels, and their equivalent. The cells must be cleaned every 30 days with soap, water and steel wool (never clean with acids) and be replaced immediately in the unit.

In boilers, flush one 1st week, once again after the 3rd week and thereafter every 13 to 30 days, depending on the desired of those in charge of maintenance. The more flushings done, the better the boilers will be conserved.

- c. Boilers. In the case of steam boilers, flushing should be carried out every hour for 5 seconds each time. If the water is very hard, flushing should be increased to every hour, or else continuous automatic flushing. The more flushings, the better for the conservation of the boiler.

Clean the cells with vinegar (70%) + salt (30%) every 30 days. If you wish, clean them every 15 days, and the effect will be much better.

BUT THE DRAIN IS INDISPENSABLE.

- d. Cooling circuits. Clean the cells every 30 days, as in the other applications.

Wash the cooling tower upon installation and after 30 days (if necessary) and whenever it is verified that the tower contains to many deposits. After installing Solavite, cleaning the tower is easy, all that is needed is a strong jet of water and the scales come right off.

Replacement of Cells. If is very important: for the system work. Every 12 months (or 1 year) depending on the application.

CATALYSTIC TREATMENT-SOLAVITE

Solavite catalyst does not cause any chemical change in the water. It does not add anything to the water nor take anything from it. Existing deposits are affected and removed. This process does not cause corrosion nor does it cause electrolysis. The catalyst action simply prevents mineral deposition and removes that which exists without changing the chemical properties of the water.

The process can be noted after 48 hours by measuring the TDS. After Solavite the dissolved solids (TDS) increases and this reveals that no new scales are building up.

APPLICATIONS OF SOLAVITE

1. *Hotels, condominium and Apartment Projects, Office Buildings, Hospitals, etc.:*

- A. Prevents the formation of scales and removes existing one without causing corrosion to the system.
- B. Saves energy by more efficient operation of heat transfer and, maintains optimum heat transfer.
- C. Eliminates chemical products, for descaling.
- D. Reduces the taste and odor of chlorine in water and alters the smell and taste of water with high mineral content.
- E. Inhibits the growth of bacteria and algae in the system due to the absence of encrustations.
- F. Prolongs the life of equipment- pump, heating exchanger.
- G. Eliminates the scale build-up in showers, washing machines, dishwashers, and hot water heaters.
- H. Produces more suds and gives a better cleaning action from soaps and detergents with smaller amounts.
- I. Eliminates the discoloration of sheets, towels and other linens.
- J. Eliminates the use of filters for ice machines.
- K. Eliminates the replace of pipe and other components.

2. *Boilers:*

- A. Eliminates hard scale in boiler tubes and all water shed surfaces, thus removing a thermal barrier and making a significantly more efficient heat transfer possible.
- B. Eliminates the corrosion caused by scale accumulation.
- C. Increases the life of the boiler system, including the boiler, pipe, pump, deaerator, tank, etc.
- D. Reduces maintenance-time.
- E. Avoids the risk of handling dangerous chemicals.
- F. Eliminates the use of water softeners including their associated costs and space requirements.

3. *Cooling Towers:*

- A. It prevents the formation of scales and removes existing scales without causing corrosion to the system.
- B. Pipes will remain open and clean for unrestricted flow.
- C. System pressures will be normal, as designed.
- D. Heat exchange equipment will be optimum.
- E. Equipment life will be extended.
- F. Costs of operations will be reduced.
- G. Eliminates the need for chemical products.
- H. Eliminated the need for monitoring.
- I. Less expensive than water softening, conditioning and de-scaling chemicals.
- J. Eliminates down time for repairs and replacement.

4. *Restaurants and Food Industries:*

- A. Increases the output of fermented dough.
- B. Reduces the bacteria and microbe content in the water.
- C. Enhances the taste and reduces the odor OF chlorine in the water.

The SOLAVITE Catalyst

The SOLAVITE unit is a unique physical catalyst which alters the magnetic properties of scale forming minerals so that these minerals are repelled from the walls of the pipe or container rather than being attracted to them. The SOLAVITE process works without causing corrosion and electrolysis. It is entirely self-contained apparatus which does not require an external power source or monitoring of any kind.

Nobel Prize Winning Chemist, Linus Pauling, stated that people are skeptical of the effectiveness of a catalytic action until they see the results. While a precise scientific explanation of how a particular catalyst works may be lacking, its accomplishments and results can be readily demonstrated in actual use.

How SOLAVITE Works

The SOLAVITE CELL is a diamagnetic catalyst whose container is hermetically sealed cylindrical copper tube. Its size is determined by the use and volume of flow to be treated. The cells are encased in an aluminum housing which has a special coating. In use, the cells cause changes in the attractive and magnetic forces between the liquid, the mineral properties and the pipes fixtures. The net result is the prevention of the formation of deposits in the system. Previous existing deposits are also affected and removed.

Thus, SOLAVITE acts as a physical catalyzer (not mechanical or chemical or electronic); the unit combines properties of the earth's magnetic field, and the ingredients of the copper cell and the flowing water to alter the environment and dissolve minerals such that scaling and deposit build-up are completely eliminated.

The catalytic process was developed in the 1940's by a French scientist, Andre Emile Barbier. His research was initially based on the work and theories of Hans Christian Oersted, a Danish scientist, who studied the interaction of magnetic fields and electronic charges. All modern electric motors generators are based on the principle of the forces developed by moving magnetic fields.

Similarly, the SOLAVITE process increases the diamagnetic field of the moving water and alters the mineral particles so that formation of hard scales and encrustations are eliminated. The mineral encrustations that exist become soft and are easily washed away with the force of water from a hose. Where these sediments do accumulate, they are easily flushed away, for example, in the "blow down" water from boilers.

In summary, the SOLAVITE process uses no external power or chemicals. There is no change in the water or pH or hardness, yet hardness related minerals are altered so that the water may be used as if it had been softened. Mineral crystals formed do not scale deposit as they normally would, but are suspended in the water. The formation of hard, larger mineral particles is inhibited and instead a finely divided, dispersed colloidal material is readily carried along by the flowing liquid. The end result is a clean, deposit free system with all of its intended benefits.

NOTE: The information above addresses water as the flowing liquid with its scale forming minerals as the illustrative system. However, similar effects and benefits occur in numerous other fluids when treated with the SOLAVITE catalytic cell. For example, major increases in efficiency and other maintenance and pollution benefits are obtained when SOLAVITE is used liquid fuels(oil, diesel, gasoline, alcohol).

INSTALLATION INSTRUCTIONS & MAINTENANCE

1. The cells (copper tubes inside the apparatus) must be held PARALLEL to the earth and must be oriented in the direction of MAGNETIC NORTH-SOUTH, same direction as the compass needle. Never orient the apparatus without a compass. (**Note:** Whenever possible, compass reading should be made away from any building, structure, power line, etc. These structures can cause a deviation from magnetic North.)

2. The apparatus must be installed with plastic nipples. Metal nipples should never be used. The nipple threads should be generously wrapped with Teflon tape.
3. The catalytic action begins to work a minimum of 30 feet or 10 meters from the apparatus.
4. The apparatus must be placed so that it is not in contact with masonry (walls or floors), metal or earth. When the apparatus is very heavy and needs to be supported by metal or masonry, you must place a 3 ½ “thick layer of rubber or wood separating the apparatus from the support.
5. The apparatus should never be painted.
6. Do not install the apparatus closer than 15 feet to magnetic switches (it may cause them to burn out), or to significant magnetic fields.
7. The copper cells must be removed from the apparatus every 30 days and cleaned with vinegar and salt and after current water. In case of Boliers and Cooling System the cells must be cleaned every 15 days.