

Water Scale Guard



Introduction

Magnetic water treatment machine was first invented in 1945 by a distinguished Belgian Engineer (Vermieren 1957) this machine which is currently utilized in more than fifty countries around the world, such as America and Russia Practically introduced to the market since 1950 and as a result of a series of persistent and continuous studies it was developed into its present improved and perfect form, in 1996 as Aqua correct. But in India we have developed AMRUT Water Scale Guard as per the weather condition and different nature of water. One of this machine contains a powerful magnet which is the source of magnetic energy. This powerful magnet is fixed in a small tube. with such high technology that can create a magnetic field reaching a high rate of about 6500 gauss.

This machine simply works based on the Electro-magnetic induction principle which was introduced by Michael Faraday in 1932. Water passing through this machine under goes the magnetic energy present there, which influences and directly effects the existing minerals, particles, calcium carbonate molecules (CaCO_3) salt and other saline in water and change their physical properties. This change in the electron pattern in ions leads to lack of activity in FORMING COMPOSITION and no precipitation occurs. Also magnetic energy reduces the surface tension of water by 10%. However it is said that output of this machines depends on the power of magnetic field imposed, velocity of water flow, magnetic force, number of particles with negative and positive charge in water and angle between particle velocity and applied magnetic field.

Apart from that hardness of water/impurities present in water volume and range of mineral ions found in water also effects, if the incoming water quality matches the requirement of this device then it will show the acceptable as well as miracle results.

What is Hard Water ?

Water with high mineral content is generally referred as hard water. Such water mainly contains a large amount of calcium and magnesium ions. Along with calcium and magnesium ions, hardwater can also contain bicarbonates and sulfates or chloride.

Water molecule consists of two elements. (1) is oxygen (2) is hydrogen i.e. H_2O the oxygen acts as a negative while hydrogen acts as a positive. Water molecules do not travel in single form, they travel together. They stick to each other and develop clusters with other water molecules, by the attraction of a positive (Hydrogen) to negative (oxygen). Water molecules develop clusters in many sizes depending on the number of water molecules involved. So, more minerals means more hard water and more hard water means more clusters in big and small size, these clusters harm everything, whatever comes in these ways. They mainly distract the process of cell membrane in agriculture, crop and root of plants make them active and develop scale

Water Scale Guard Electrical Specifications

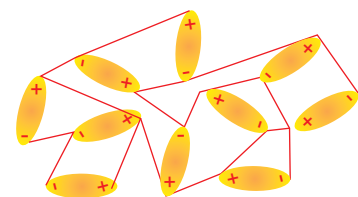
Input Voltage	: 100 - 275 v ac 50 hz
Input Current	: 50 ma Ac
Output channels	: for 1 inch to 2 inch one no. for 2.5 inch to 4 inch two nos.
Output Voltage to coil	: 15 v dc
Output Current	: 10 A peak maximum
Output Signal	: AC square signal with swept frequency
Coil frequency	: Swept frequency from 1 khz to 15 khz
Protection	: IP 65 water proof protection for electronic circuit

Transformer power supply

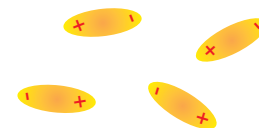
Operating temp 10 degree to 60 degree centigrade

Features :-

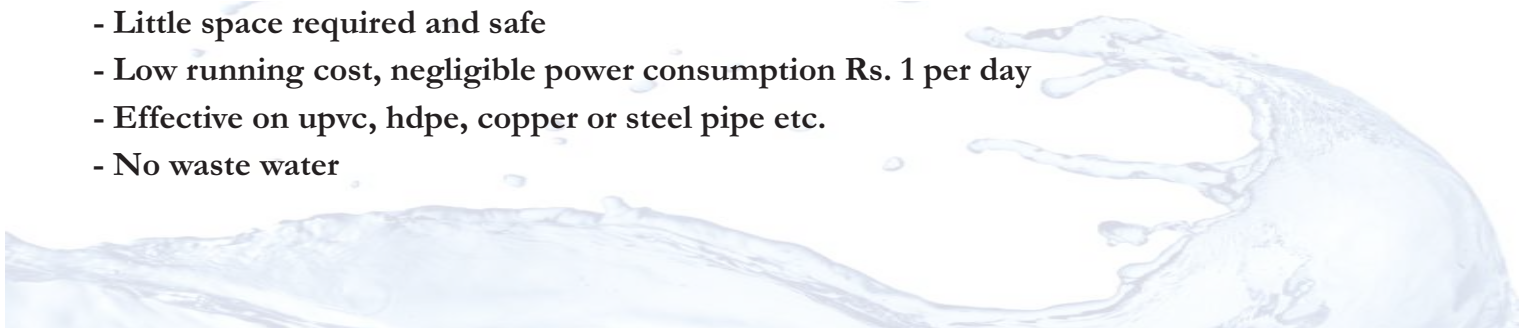
- Fit & Forget Maintenance Free
- No salt or chemicals needed.
- No maintenance, easy to install
- Mains pressure unaffected
- Retains healthy natural minerals
- Little space required and safe
- Low running cost, negligible power consumption Rs. 1 per day
- Effective on upvc, hdpe, copper or steel pipe etc.
- No waste water



Water Molecules are Locked in a Cluster



Individual Water Molecules



How does AMRUT Water Scale Guard works ?

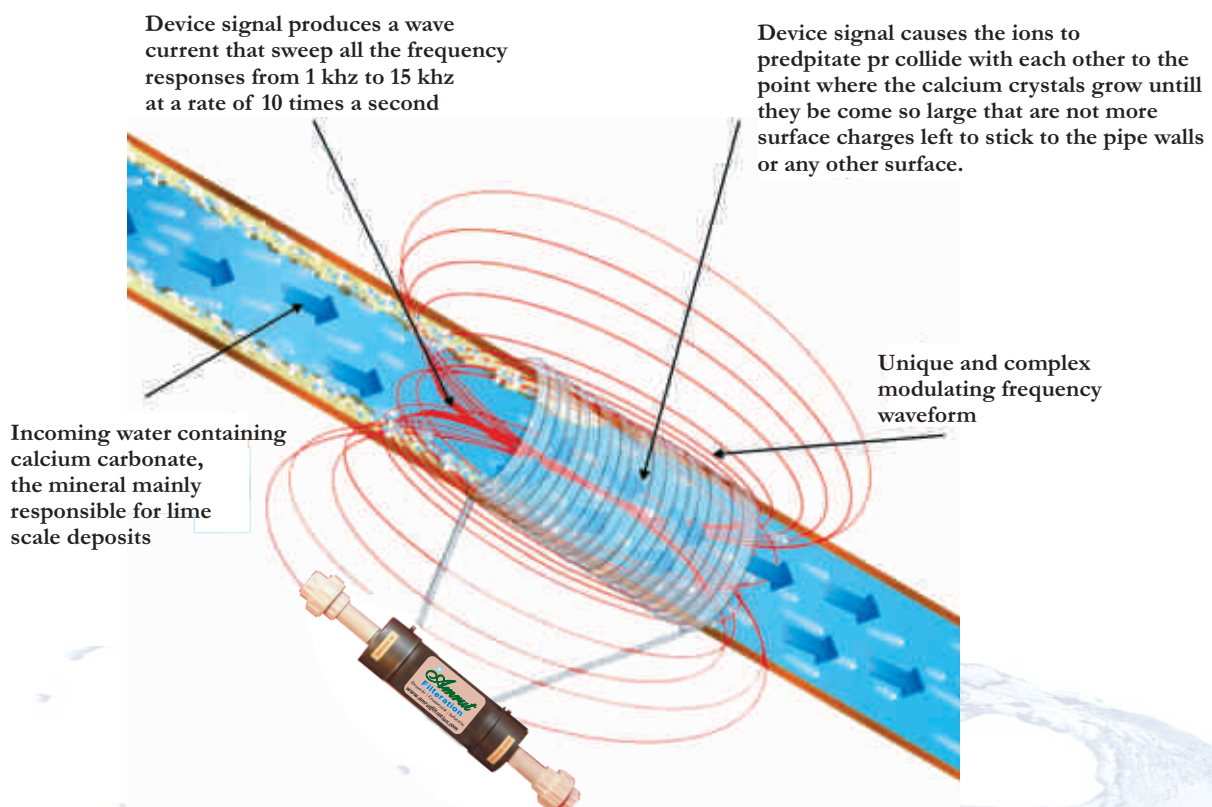
As soon as the water pass through the device or conditioner, a certain type of electro-magnetic field is developed in the machine and as a result of that two types of process are done.

Breaking Process :

During this process high mineral clusters of any size are being broken down into small and tiny particals and scattered. e.g. if any of the mineral ion in the water is in size of 40 micron, then it will be broken down and converted into 10 tiny parts of 4 micron and making them bio-available.

Transforming Process :

This process is very important in water. When minerals are being broken down and converted into small and tiny particle, because of that the nature of water molecules to travel together and sticking to each other or developing clusters are being ruined and transformed into 100% non-sticking nature. Like that they cannot travel together or develop any culster or layer into water. Nature of water is changed. so with the help of joint process of this device hard water is turned into “Best Solvent” compared to non-treated water. This is the only technology which does not remove useful and essential minerals / nutrientions from water but treat them and make them more bio-available.



Electro Magnetic for Household Applications

With the use of AMRUT water scale guard all the appliance, tools, floors, tiles bathroom fitting, shower, washing machine, pressure pump, R.O. remain scale free and removes old deposited scale from all surfaces including pipeline.

- while washing clothes, less water and less washing powder or soap required for better results.
- You will feel fresh after taking bath with this water and your hair will remains silky, may help to prevent hair loss and keep you away from skin disease.
- Gas and electric water heater require less power.

Electro Magnetic for Agriculture and Plant growing

It is konwn that there are thousands of CELL Membranes found on the roots of plants, trees and crops, which keeps the plant alive, healthy. Bacteria free and fast growing if the cell membranes are active energized and magnetized, they help plant to intake required mineral, nutrients and the micro nutrient element from the soil with the help of water.

But When the plant / crop is watered and the water is hard, non-magnetized the White coating Layer is formed on the root of the plant / crop and very hard water the cell membranes deactive or dead up to 80% and as a result of that plants start to suffocate. this result in decrease of growth rate and low crop etc. that is the reason why magnetized water should be used for irrigation.

Advantages :-

- 1) Crop production increase from 15-20% to 50% and in some cases even more.
- 2) Plant disease rate drastically decreases.
- 3) Taste of agriculture crop and quality improves.
- 4) Approximately 15% less water is required for irrigation.
- 5) With help of this device very hard (salty) water can be used for agriculture (up to 8 thousand PPM) and more in some cases.
- 6) Less fertilizer required
- 7) Soil becomes softner as the time passes and soil desalination takes place. This is because magnetic water has ability to desolve the salt from the soil and crop production increases year after year.
- 8) This device makes Drip Irrigation System more effective clean and maintenance free even in very high TDS water.
- 9) Very much useful and beneficial for Green Houses (Guaranteed Result attained)



Without Soil & Water Scale Guard With Soil & Water Scale Guard

Electro Magnetic for Industrial Use

With use of this device in industries chemical process expenses reduces up to 50%. It help to keep following industrial device scale free like Boiler Cooling Tower, Heat Exchanger, Chiller, Engine Cooling System etc. and increase the efficiency of the plant.

Electro Magnetic for Polutary Animal Trading

After long observation and research by the scientist of magnetic technologies companies all over the world it is noted that using magnetic water for drinking purpose of chicks and animal result.

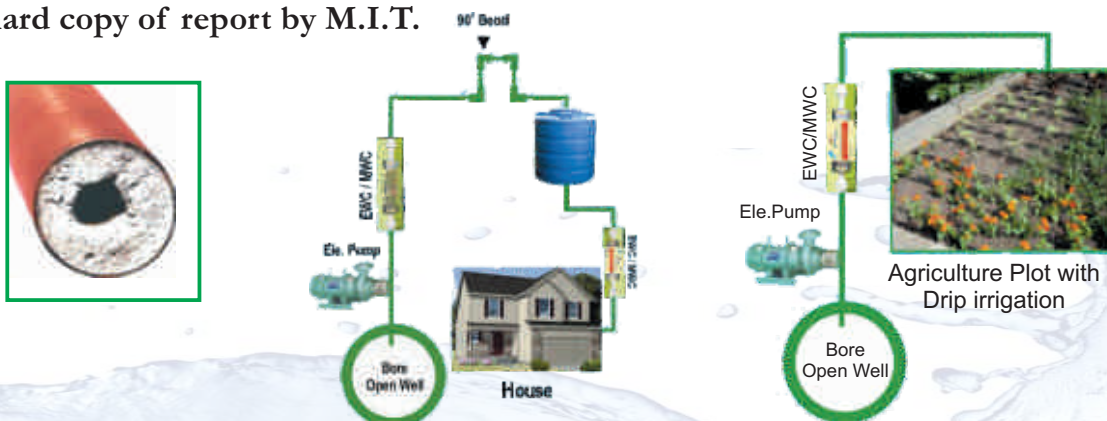
- Increase in the process of bone formation.
- Improves morphology of blood.
- Helpful in the growth and development of some bones.
- Quality and quantity of meat improves.
- Reduction in death rates by 2-3 times also noted
(average weight gain increase by 5-7% with egg laying quality by 10%)

Electro Magnetic for Concrete and Cement Industry (Construction)

We are proud to announced that, this machine has been tested and trialed by M.I.T. (Maharashtra Institute of Technology) Pune, on concrete, parameters strength of concrete have been studied for more than 100 concrete sample, including the none magnetic sample (made by ordinary water) and magnetic sample (made by our machine magnetic water) and they reported compressive strength of samples made by magnetic water was 27% more than sample made by ordinary water. They started that the increase in plasticity, the efficiency and quality of concrete boosts in comparison non-magnetic concrete cubes.

Water plays very important role in cement industries curing and casting are two main process to make any cement article, and for this, quality water is required. If the water is with extra chlorine, heavily polluted muddy oil, acids, salt or any other material based is harmful, it decreases the compressive strength of concrete or cement article.

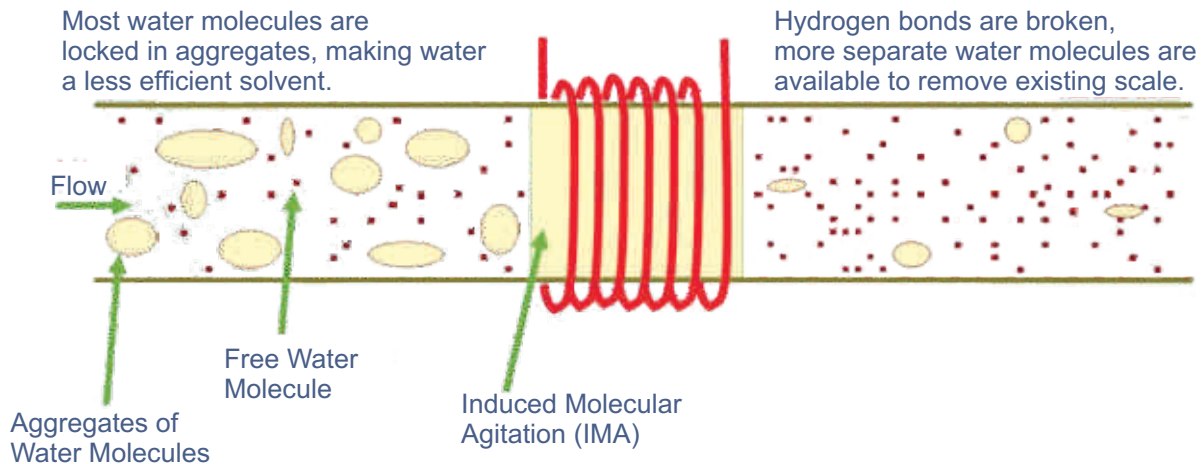
Generally water suitable for drinking in suitable enough for concrete construction. But the quality and this much quantity is not possible to arrange. But if the magnetic water is used for it, it can make the difference and it is proved by M.I.T. Pune. We can produce the hard copy of report by M.I.T.



Advantage :

- It increase the efficiency of concrete.
- Decrease in the volume of water become quite possible.
- The most important advantage, it increase the compressive strength of cement upto 27%
- Concrete made in this way is more resistance against freezing and more impermeable.
- Decrease the rate of breakage and wastage upto 25%
- Decrease in water surface tension in magnetic water by 10% in comparison with ordinary water.
- This device can be used and benefitted any following cement industries such as
 - 1) Pavar Block Manufacturers
 - 2) Cement Block Manufacturers
 - 3) Cement Roof, Tops, Sheet Manufacturers
 - 4) Ready mix Cement Plant and all type of Construction Industries using cement.

Remark : This is not a R.O. or Water Purifier, so it does not make any chemical changes in water, but chang the Physical properties of water and make water molecules, magnetized, energized and more bio.



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