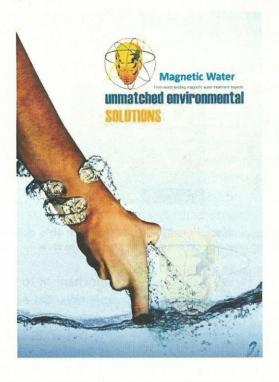
Magnetic Water - Earths Natural Technology



2014

# Magnetic Enhancement of drinking water & its treatment and within RO Systems





MagTech (Pvt.) Ltd., Karachi, Pakistan – Principal representative of Magnetic Technologies LLC, Dubai, UAE., www.magneticeast.com

6/21/2014

Magnetology is the earths' oldest technology: which it uses for realignment of the waters molecular structure and much more; it is the life force of everything living. The scientists within Magnetic Technologies carry forward the understanding that magnetism is a natural resource, that upon being understood and applied correctly can create enormous benefits and contributions to many of the earths' environmental, water and food resource and health challenges.

"The majority of drinking water that we use is Not used for drinking"

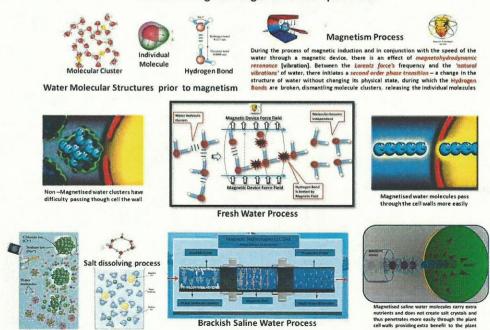


The World Economic Forum agrees that by the year 2030 we potentially will be running into a 40% deficit of available fresh water for global consumption at our present development and usage rate

Magnetism surrounds us in our everyday lives. It is the earth's natural defence mechanism to the extremes of the sun and outer space bombardments of numerous types of cosmic rays. On earth Magnetism is the natural enhancement agent of our most precious resource water, constantly realigning the molecular structure after interferences and recycling since the world began. But not only the flowing water we drink and irrigate with, but also within our bodies of all living creatures. We within Magnetic Technologies understand this process and enhance and target the process to the benefit us humans, livestock and of our environment and the needs of the water resource industry.

**So how does it work?** Effectively we break the molecular bonds between the molecules. We break the hydrogen bonds. This allows the individual molecules instead of being clustered together unevenly within water, to be nicely distributed, being unable to suspend heavier pollutant particles and being able to be absorbed within plant and animal cells far more efficiently carrying the necessary nutrients and minerals.

#### Understanding The Magnetic Affect Upon Water



## What are the benefits of Magnetised Water to us as humans?

Magnetised water because it is more easily absorbed through our cells, reaching vital organs, making the water more efficient and affective; realigning our body in the long term with a magnetic force.

## Who Benefits?

- Healthy people improve their resilience to ailments
- Pregnant women improve their well being and strengthen the life force to their child
- Elderly increase their fortitude to ageing
- children benefit from stimulated brain activity whilst reducing aggressive tendencies
- workers increase their metabolism for strenuous activities with better endurance

## Personal Symptoms Addressed:

- **HEART DISEASE AND STROKE**-: Magnetic water is essential to help prevent clogging of arteries in the heart and brain.
- **INFECTION**-: Magnetic water may increase the efficiency of the immune system to combat infections and cancer cells.
- ADDICTION-: Magnetic water can help eliminate addictive urges for caffeine, alcohol, and some drugs.
- DEPRESSION-: Magnetic water helps the body naturally replenish its supply of the neurotransmitter serotonin.
- LACK OF ENERGY-: Magnetic water generates electrical and magnetic energy in every cell of the body, providing a natural power boost.
- OSTEOPOROSIS-: Magnetic water is an aid to strong bone formation.
- **LEUKEMIA AND LYMPHOMA**-: Magnetic water normalises the blood-manufacturing systems that can aid in the prevention of many forms of cancer.
- **ATTENTION DEFICIT**-: A well hydrated brain is continually energised to imprint new information in its memory bank.

## The Well Being Health Benefits:

- Treatment of the cardio vascular systems
- Digestive systems
- Nervous system
- Urinary system
- Kidney and Gall Stones treatment
- Decreases Cholesterol
- Stimulates the brain
- Relieves constipation
- Assists diabetes relief
- Strengthens hair roots
- Improves quality of hair
- Kidney stones and magnets

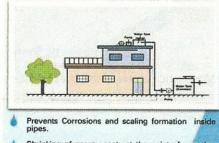
## The home building benefits:

- Reduce scale in the pipe infrastructure and kettles and water heaters
- Reduce the detergent requirements transforming hard water to soft water characteristics
- Improves existing filtration systems efficiency

# How do we achieve this within our homes?

- Magnetic Device Installation within the water feed lines to main house water tanks
- inline to water taps
- inline to shower heads
- within filtration systems
- by use of a magnetic water funnel

#### Key advantages in magnetizing domestic water:



- Shrinking of energy costs at the point of pumping due to lightning of water. Fills overhead tank faster.
- Removes lime scale build up in showers, sinks, faucets and other costly fixtures.

  While bathing, protects skin from infections and arrests hairfall.
- Shorten the time for water boiling and cooking. Food gets distinguished medicinal effect and quality improves significantly.
- Saves electricity usage upto 50% while using geycers. Prolongs the life of their heating elements by preventing scale build-up. Benefits are extended to any appliance, that uses water in its process. Ex solar heater.
- 50% less chlorine is needed for treatment of water in swimming pools. Prevents algae formation.
- Plants will grow healthier, quicker, bigger and will need less fertilizers and water.

The magnetic shower adapter can be attached to any standard shower between the shower pipe and shower head. Magnetic shower has proved to be very efficient and effective for magnetising liquids in larger quantity. Liquid passed through the shower adapter acquire a finer and more homogeneous structure that significantly enhances the fluidity and dissolving ability as well as biological activity. Such characteristic of magnetised water promote hair growth, reduce hair loss and aid healing skin related diseases.

According to UNESCO, almost every country suffers from a deficit of high quality drinking spring water. Investigations show the connection between increasing levels of stones in kidneys and the growing levels of harmful elements in drinking water.

The ultra-sound treatment of kidney stones is not always successful and surgery can be very damaging. However, another effective solution to this problem exists. This is the consumption of magnetic water for drinking and cooking. In order to magnetize water, just pour it through our magnetic funnel.

Long experimental investigations and clinical observations (1975-1994), concluded that magnetic water must be used in order to dissolve kidney stones. This can only be done by using magnetic funnel, made by "Magnetic Technologies". For this treatment, it is recommended to consume magnetic water daily and unlimited quantities.

Magnetize tea, water and other beverages. Magnetic beverages are the key to a successful recovery and a perfect way to prevent health problems for the whole family.

Magneto-therapy using magnetic water when treating patients suffering from cancer International Medico- Technico- Biological Association of Magnetologists. Vitebsk, Russia (Professor Demezki)

By magnetizing drinking water and water-based ethanol, we have studied the effect these solutions have on human body when treating various diseases. Magnetization process was carried out by pouring these two solutions through Magnetic funnel. The results showed high efficiency when treating:

- stress situations,
- radiation exposures.
- This also includes high efficiency in:
  - improvement of bodily functions during cancer treatments and cancer prophylactic,
  - o improvement of various types of gastroenterological diseases,
  - o stabilization of nervous and cardio-vascular systems,
  - normalization of metabolism, immune and adaptation processes.

The end of the report recommended using magnetized drinking water and ethanol both, in clinics and at home as a medical treatment.



## magnetic funnel.

Magnetic funnel is the most efficient and effective method for magnetizing liquids. Liquid passed through the magnetic funnel acquire a finer and more homogeneous structure that significantly enhances the fluidity and dissolving ability as well as biological activity.

## "Alive" and "dead" water

"Alive" and "dead" water. We are familiar with these terms since our childhood, but were the writers telling the truth when they would describe the properties of "alive" water.

Every human being on this planet has to drink water in order to stay alive. But what do we know about water we drink? Absolutely nothing! Think about the fact that at this moment, clean drinking water costs 2 times as much as petrol!



We all think of it being clean but the truth is that the water we refer to as clean is "dead". This is because we as humans have done everything to "kill" water, by making it undergo mechanical,

# Magnetic Enhancement of drinking Water & its treatment and within RO Systems Page 5 of 13

thermal and chemical treatments to clean it. However, there are places on earth where clean "alive" water can still be found.

Long ago, people would call this water "holly". Such water can be found in holly and clean springs.

But not many people know that underground all the holly springs with clean "alive" water flow through the areas of natural magnet depositions. Therefore this water undergoes magnetic treatment and acquires unique healing qualities.

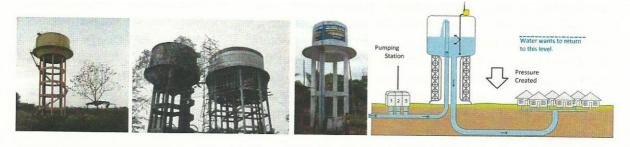
We strongly believe that magnetic water will become an essential part in the lives of every human being.

For now we want to make you familiar with simple methods of magnetizing water. That is the transformation of "dead" drinking water into "alive" drinking water.

Effects of indirect application are described below. Combining direct and indirect methods of application will improve the results.

# Advantages in 'Magnetizing' post treated / R.O Water /Chlorinated water

# Water Towers and Distribution Infrastructure



The water tower is used extensively throughout the world. it provides constant water pressure within a community and offers a constant supply of water with the pumps simply toppoing up the tank at the most convenient time.

The challenges of water towers and their infrastructure is the contamination threat, the building up crustation within pipes and valves reducing water pressure or capacity to a whole or expanding community.

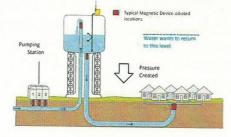
Pumps need to be maintained and kept efficient; Tanks need to be kept bacteria free; Distribution pipes and valve connections need to be kept clear, clean and flow efficient.

# Magnetising the Water System can provide the necessary solutions that:

- not only contains deterioration of water quality but
- also improves the efficiency of the flow infrastructure,
- improving pumping and feed capacity,
- simultaneously improving water quality,
- preventing bacteria development,
- which allows the reduction in the use of harmful chemicals such as chlorine and fluoride.

# Magnetic Device placement is straightforward.....

- 1. on the outlet
- 2. on the tank inlet
- 3. prior to the pumping system
- 4. it may be considered to fix prior to any main distribution junction locations



Magnetisation provides the opportunity for clean and efficient water infrastructure environments

# **Understanding the Water Treatement Processes**

- R.O Water: The water is de-mineralized. Since most mineral particles including magnesium, calcium, potassium, iron etc, being larger than the water molecules are removed by the semi-permiable membrane of the R O system. Removing the minerals makes the water acidic.
- Drinking acidic water will not help maintain a healthy pH balance in the blood, which should be slightly alkaline. Like acidic beverages, acidic water will often cause a leaching of essential minerals such as calcium and magnesium from the body, especially from the bones and the teeth, in order to neutralize the acidity.
- This will produce mineral deficiency which will upset the balance of our system, leading to undesirable effects. When body water become more acid than alkaline (pH above 7), our body tends to produce more free radicals, those atoms or groups of atoms which are unstable and damage organ cells, causing cancer.
- (An alternative purification technology which is recognized by the U.S. EPA (Environmental Protection Agency) as the best available technology for removing contaminants without demineralization, is multi stage activated carbon filtration)

**Chlorinated water**: Un-fortunately, the primary reason adding chlorine to water for disinfection is not because it is the safest or most effective, because it is a lesser evil and the cheapest known technology to dis-infect water.

What the studies have found is that chlorine itself is not the main problem; rather it has to do with what happens when the chlorine mixes with any type of organic matter in the water.

In the 1970s scientists discovered that when chlorine is added to water, it forms Trihalomethanes (THMs), one of which is chloroform. THMs increase the production of free radicals in the body and are highly carcinogenic (cancer causing). Water memory stores this energy even after filtration If not removed has serious implications to our health.

Cancer risk among people using chlorinated water is as much as 93 percent higher than among those whose water does not contain chlorine," according to the U.S. Council of Environmental Quality. Sadly, chlorine in drinking water is not the only problem. According to the Journal of Public Health, "Up to two-thirds of the harmful effects of chlorine are due to inhalation and skin absorption while showering." since the shower is warm or hot, our pores are wide open and our skin readily absorbs the chemicals. And then there is the cosmetic effect of chlorine — it strips the protective oils from the skin and hair, causing excess drying and wrinkling of skin as well as dry and brittle hair.

Magnetizing advantage: Healthy cells require the conditions of alkalinity and high molecular oxygen (O<sub>2</sub>) to produce ATP's. (Adenosine Tri Phosphate carry chemical energy within cells for metabolism).

When clusters of bi-polar water molecules are subjected to magnetic field, they severe their hydrogen bond with each other and break their cluster and exist as single molecules, for an effective period of time. This will improve their hydration properties excellently as their surface tension and viscosity is reduced. Because magnetized water is wetter and therefore more penetrating, it furthers better assimilation of the various nutrients and vitamins in the cells and exfoliations of toxins. Most importantly, since cell membrane's are selectively permeable, absorptions of nutrients through them are possible when they go through 'aquaporins', specialized protein carrying channels , which allow nutrient ions only when they come in water having small molecules cluster size or when water molecules exist independently. Something which is achieved when water is exposed through specially induced magnetic fields. Which cannot happen in the best of R.O Water systems.

Magnetic treatment of water not only reduces the need for chlorine from the municipal/tap water but also removes all the harmful dissolved gases and the need for chemicals from the water. It adds oxygen to the water by producing hydroxyl ions, which are very important for living cells. Magnetic water is structured water addressing all the requirements of body.

## The Silicon Challenge

Silicon is never found in nature in free form. In crystallized form it is only reactive under conditions of extremely high temperatures. Silicon is part of various minerals, from which it may be released during weathering processes. It is also released under water during volcanic activity. It is a common contaminant in most waters because of the many natural deposits that dissolve in water over time. Natural physical and chemical weathering processes also produce many extremely small particles or colloids of silicate materials. The solid crust of the earth contains 80 to 90 compounds of silicon such as silica or silicon dioxide. Most silicate salts are only slightly soluble in water and are widely distributed in nature. Minerals such as asbestos, mica, talc, lava, etc. contain silicates. Silicon compounds differ in water solubility.

Silicon oxide is relatively water insoluble compared to other minerals. Upon dissolution the following equilibrium is formulated:

 $SiO_2(solid) + 2 H_2O(liquid)$   $H_4SiO_4(solid)$ 

This balance contains silicic acid, a weak acid that also forms during silicon mineral hydrolysis:

 $H_4SiO_4(s) + H_2O(l)$   $H_3O+(aq) + H_3SiO_4(aq)$ 

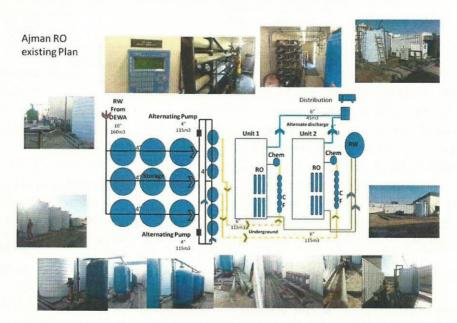
Silicon dioxide has a water solubility of 0.12 g/L, whereas for example silicon carbide is water insoluble.

Silica (SiO2) is an oxide of silicon, and is present in almost all minerals: It is found in surface and well water in the range of 1 - 100 mg/l. Silica is considered to be colloidal in nature because of the way it reacts with adsorbents. A colloid is a gelatinous substance made up of non-diffusible particles that remain suspended in a fluid medium. Silica is objectionable in cooling tower makeup and boiler feed water. Silica evaporates in a boiler at high temperatures and then re-deposits on the turbine blades. These deposits must be periodically removed or damage to the turbine will occur. Silica is not listed in the Primary or the Secondary Drinking Water Standards issued by the US EPA.

# Magnetic enhancement to RO Systems and Challenges Example:

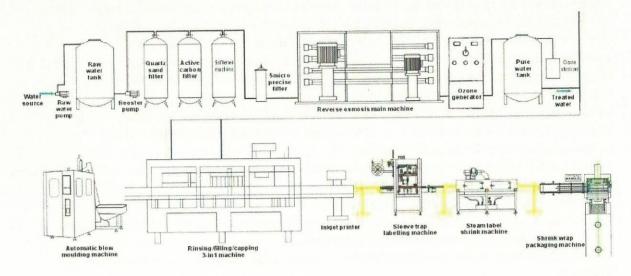
The water received maybe rejected water from a Desalination unit or from a River or Lake. This RO system example processes the water and discharges into Tankers for a variety of uses from surface water usage to supplying domestic.

# A typical large community System producing 45m<sup>3</sup> of water per day per system unit

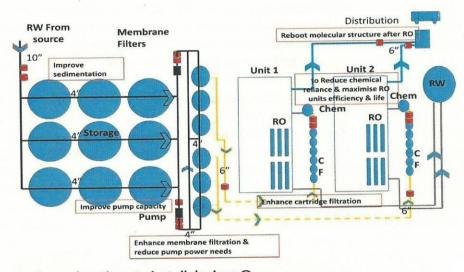


The Challenge is that the membrane filter phase is inundated with sediment which has been identified by the client as dissolved silicon. This has reduced the capacity from 200GPM to 76.96GPM so in this example it has consequently required additional chemical additives to try address this problem. the consequence will also be the need for additional power usage for the pumps.

# The Classic RO system lay out:



# Magnetic Technologies optimum enhancement proposal



## MT proposes optimum locations to install devices @

- double device at site entry prior to storage tanks
- single device prior to pump to Membrane filters
- double device after pump to membrane filters
- double device on each unit inline prior to cartridge filter systems
- single device after cartridge filter systems before chemical additives
- single devices prior to discharge to distribution offsite

The purpose is to enhance each stage of the process within water treatment, providing better sedimentation within storage tanks, reducing the need for chemicals, improving the efficiency and life of filter membranes and increasing the capacity of the pumping systems and finally providing water to the consumer that is healthier, better tasting and beneficial to our sustainability.

# Sewerage Treatment within household or small community

# Treatment for Domestic water supply & home sewerage treatment systems:

- 1. Installation of magnetic systems on the centralized water supply pipeline inlet of a residential house to treat the flow in passing (Fig. 1).
- 2. Installation of strap-on magnetic systems on the sewage outlet pipe of every residential house (Fig. 1).

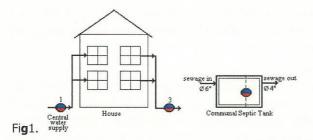
Implementation of the first scheme will produce the results that are presented below:

• the operational lifetime of housing pipelines is extended by 2-3 times due to significant reduction of deposit build-ups,

- a corrosive action of the sewage water on the iron slides down by 30-50%. That will prolong the service life time of housing pipelines,
- the probability of clogging sewer pipes declines because of better solubility of the magnetized water,
- collection of fine fractions improves by 15-25%,
- the rate of sludge sedimentation in the second CST chamber accelerates by 25%,
- the rate of suspension settlement inside the CST goes up by 1.4-2.6 times
- there is a 28-60% reduction of the suspended solids in the water on the CST outlet.

Almost the same advantages except for the first three will be obtained when carrying out the activities related to the second option.

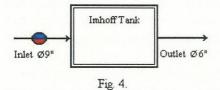
To sum up, the first choice is the most attractive one for a complex approach towards the sewage problem.



## 2.2. Sedimentation Tank

The IT design provides for installation of a slot magnetic system at settlement tank entrance (Fig. 4). The following benefits can be secured:

- the rate of solid sedimentation accelerates by 1.5-2 times,
- collection of fine fractions improves by an average of 20%,
- dissolved solids in the clarified water decrease by 15-25%,
- biological oxygen demand goes down by 10-15%,
- sludge digestion time reduces by 30%,
- the probability of blocking the tank filter drops nearly two-fold.



#### Chlorine dosing System: (Cl<sub>2</sub>)

Raw water may contain living micro-organisms and organics which are objectionable to R.O. Membrane as it may cause fouling to deteriorate the performance. Even water may contains ferrous which can be oxidized to ferric oxide which is settle down in storage tank. We have offered a Hypo chlorite dosing system for this purpose. About 3-4 ppm of sodium hypo chlorite solution is dosed in raw water storage tank. This reacts with water to form a hypo chlorite acids which acts as disinfecting agent.

For this purpose one no. of HDPE hypo chlorite solution preparation tank along with One nos. of dosing pumps are provided. Required suction / discharge pipe work in pvc construction is provided with isolation valves. Dosage rate is adjusted as per the actual requirement, which may very on case to case basis.

# Raw water storage tank: (RWST)

One No. of Raw water is required in for storage of chlorinated water having appropriate capacity. The tank is fitted with PVC pipe work & isolation valves and suitable type of level indicator.

# Raw water supply pump: (RWP)

A Horizontal Centrifugal type of pump in Stainless Steel construction has been provided for supplying Raw Water to Pressure Sand Filter Unit. Necessary Suction / discharge pipe work in s.s construction with isolation valves are also provided up to PSF Unit.

## Pressure sand filter: (PSF)

Raw Water is first filtered by filtration unit in series prior feeding R.O.Plant. Pressure Sand Filter Unit is provided for removal of suspended matters & turbidity from raw water. PSF Unit is a SS vertical Pressure Vessel. Internally, it is fitted with bottom collecting system. A uniform grades silica quartz sand is charged on the supporting media of pebbles and gravels. This unit is fitted with SS frontal pipe work and Multiport Valve externally. During service cycle water is passed in down ward direction through sand bed, thus entrapping suspended matter & turbid particles. Over a period of time, sand bed gets chocked due to suspended matters resulting higher pressure drop and lesser floe. At this stage filter bed need to be backwashed.

When pressure drop across the sand bed increases beyond the specified limit (0.5 kg/cm^2) or quality of filtered water determinates, whichever is earlier. Regeneration involves backwash & rinsing of Sand Bed as below. For backwashing service water is passed in reverse direction of service cycle to loosen the filtering media bed. Due to this, entrapped suspended matters get free and come out along with effluent water. Backwashing is continued for about 10- 15 minutes or till the effluent coming out is clear.

For Rinsing of Sand Bed: Service water is passed in down ward direction to settle down the sand bed. The effluent water is drained for about 5 minutes time to ensure all unclear water is drained down.

# Activated carbon filter: (ACF)

Natural water may contain Colour, Odour, Chlorine & Organics in different proportion, which is undesirable for potable application, and hence, it is necessary to remove the same from water. If raw water is chlorinated for die-infection, it is necessary to remove the free Chlorine feeding to R.O System. Chlorine being a strong oxidizing agent, it damages R.O.Membranes. Activated Carbon can remove Chlorine, Odour, & Colour while passing the water through carbon bed along with Odour & colour. This Carbon granules having larger surface area and specific property to absorb organics. ACF Unit is a FRP vertical pressure vessel. Internally it is fitted with strainer on bottom collecting system. The unit is fitted with SS frontal pipe work & MPV externally. A granular activated carbon is charged on the supporting media of Coarse & Fine Silex. During service cycle water is passed in down ward direction through Carbon Bed, which removes Chlorine & Odour from water.

When pressure drop across the Carbon Bed increased beyond the specified limit of (0.8 kg/cm²) or quality of filter water deteriorates, whichever is earlier the unit is isolated for regeneration. The regeneration involves, backwashing & rinsing of Carbon Bed. Over a period of time, life of carbon gets exhausted which can be checked during laboratory testing. Particularly iodine value is most important for this application. Generally carbon is replaced once in a year.

## SMBS Dosing system: (SMBS)

The Chlorinated water may oxidize the membrane and to avoid the same precautionary we have provided Sodium MetaBiSulphite dosing system Dosage rate is 4-5 mg/liter. A HDPE chemical preparation tank with an electronics diaphragm type dosing pump is provided for this.

# Anti scalent dosing: (Anti Scalent)

The hardness salts of calcium & magnesium are likely to be precipitated if concentration exceeds its solubility limit & it may faults the membranes resulting into scaling which ultimately leads to poor

## Magnetic Enhancement of drinking Water & its treatment and within RO Systems Page 11 of 13

treated water quality from R.O.System. To prevent this a anti Scalent dosing (scale inhibitor) dosing system is provided. Normally a scale inhabitator like Perma care 191 or equivalent chemical is dosed in feed water. Dosage rate is 4-5 mg/liter. A HDPE chemical preparation tank with an electronics diaphragm type dosing pump is provided for this.

## Micron cartridge filter: (MCF)

This kind of Micron Cartridge Filter having Series of filtration with the **20 Micron**, **10 Micron**, **5 Micron**, **1 Micron**, **0.45 Micron & 0.2 Micron Nominal & Absolute Micron Cartridge.** This is a Consumable Cartridge and should replace it after Days of operation. This for Extra Safety of your Product water as it comes through the followed filtration and there are some chances to slippages for any particles which can be stop through the Cartridge also 1, 0.45, 0.2 micron cartridge filter will also take care of Bacteriological growth up to 0.2 micron.

## High pressure pump: (HPP)

For Reverse Osmosis Process to take place feed pressure of water need to be raised. For this purpose a Vertical Multistage Centrifugal High Pressure Pump in S.S construction is provided R.O. System requires operating pressure of about 14-16 kg/cm^2. High-pressure pump is fitted with S.S. discharge pipe work with necessary control valves. Necessary instruments like a High Pressure Switch, Pressure Gauge and recirculation valves are provided for safer operation of system.

## Reverse osmosis system: (ROM)

Reverse Osmosis System rejects 97 – 99% of total dissolved solids by the principle of 'Osmosis'. This system consists of a R.O. Module assembly mounted on M.S.Skid. High pressure rating FRP Pressure Vessel is fitted on the skid which houses spirally wound membrane elements in series. In RO System feed soften water is divided into two streams viz Product & Reject water. Product water is treated water having lesser TDS. Reject water is highly concentrated water, which is not to be used for any purpose but drained. Feed water at elevated pressure is first fed to first Pressure Vessel; treated water is collected in center core tube. Treated water from each membrane is collected jointly in a common product water storage tank and reject is drained.

#### For safe operation of system following instruments are provide on Panel.

- Feed & Reject Pressure Gauge to indicate respective pressure of R.O.System.
- Feed & Reject Flow Indicator to indicate respective flow of R.O.System.
- > T.D.S Meter to measure TDS of Raw & Treated water.
- High Pressure Switch for tripping high pressure pump in case of excessive feed pressure of R.O.System.
- Time Totaliser for counting working hours of H.P Pump/R.O.System.

## Product water storage tank: (PWST)

One No. of Treated water from R.O. System is stored in a our supplied a S.S. constructed storage tank of appropriate capacity. The tank is fitted with S.S. pipe work & isolation valves and suitable type of level indicator. One no. of transfer pump is provided in S.S. material of construction to feed the water in MCF.

#### Micron cartridge filter – II & III: (MCF)

During storage, atmospheric or any other contamination may take place in treated water. Hence, after passing water from R.O. System, water is once again passed through a micron cartridge filter. This is a S.S.316 Vessel fitted internally with P.P spun micron cartridge elements having absolute ratings of 1.0 micron & 0.2 microns which removes all bacterial impurities present in the water and make the water free of particulates.

## Ultra violet sterilizer: (UVS)

Through R.O. treated water is free from all the micro-biological impurities like Bacteria, Virus, etc. it may redevelop again in water during prolonged storage. For dis-infection of water is essential for Reverse Osmosis Application before Filling & Sealing in bottle. Hence, a online Ultra Violet Steriliser is provided for disinfection of R.O. treated water before filling in pre-cleaned PET Bottles. The water to be disinfected, is passed through U.V.System, which consists of U.V.Tubes which radiates high intensity Ultra Violet Rays, which in turn kills the micro organisms. This systems consists of a S.S finished surface housing with Ultraviolet Lamps fitted in it. The water to be treated is surroundings this tubes during treatment. An electrical systems is provided for production of high voltage required for U.V.Rays generation.

# Ozone generator: (OZONE)

Though R.O. System rejects all the micro — organisms like bacterial & virus and even after passing through U.V. System it may redevelop in packed bottles over a period of time. Hence, it is necessary to disinfect R.O.Product water prior to bottling filling. This is very much essential to ensure good Mineral Water Quality as per the standards. This Ozone Generator will give your water Oxygen Rich water and remove the Bacteriological growth and also provide you the Shelf Life of your Packed Bottle water unless it open for some period of time. Also this Ozonation of water can add some taste in to your treated water.

## Ozone Re-circulating tank: (ORT)

For required ppm Ozone gas mix up in finish product water. In ozone re-circulating tank water re-circulating by required flow rate pump. Ventury of ozone install out let of Pump it suction ozone and mix-up help with static mixer. This tank is provided with one no. of re-circulating pump and one no. of product water transfer pump to the filling section.

The Company - Magnetic Technologies L.L.C U.A.E.

Introducing the Scientists & Technology background:

Russian technology developed through 50 institutes with over 500 scientists during the 70's and 80's latterly under the leadership of Prof Yuri Tkatchenko. During the early 90's the Professor relocated a small science management R&D team to the UAE and created a long term partnership and the Magnetic Technologies Company with Sheikh Junaid Khoory. During the past 20 years further research and development continued along with expansion into the global market place, with over 50 different applications into various industries and sectors of the environment.

The technology spectrum not only addresses land based solutions but also weather modification and atmospheric influencing technologies, dissipating air pollution over cities, enhancing rainfall in to catchment zones, shielding critical communities from sand storms, protecting transport infrastructure from fog and reducing humidity within cities.

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# The Range of Hardware from Magnetic Technologies LLC UAE



Magnetic Technologies can provided devices for all applications from small to very large capacity, from PVC to Stainless Steel and if necessary design a bespoke device to suit







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