

30th October, 2012.

**For the attention:**

**Re: Journey to Carbon Neutrality**

Dear Sir/Madam,

May I suggest some new product systems to you that work toward large savings with the carbon offset projects within the Club . I own a small business that supplies innovative proven environmental products and services to assist your journey to carbon neutrality.

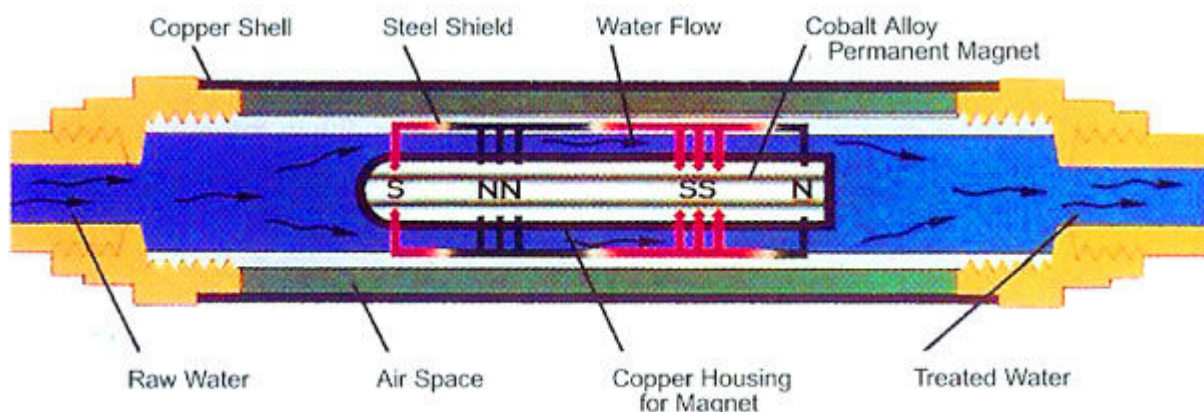
**1. Superior MFU water conditioner™**

The MFU Water Conditioner reduces water usage by 30%, removes lime scale and corrosion within hot and cold water services.

**SUPERIOR WATER CONDITIONERS** a patented water treatment system that **controls the formation of scale and corrosion** without the use of hazardous and costly chemicals. We offer this water treatment solution to applications where scale corrosion and rust is and can be a problem. We want to share with you some of the positive results of this 45 year old technology using the permanent, in-line magnet with alternating and reversing polarity field orientation along the length of the permanent bar magnet water conditioner.

**Product Description:**

Superior Water Conditioners are a unique, flow through, in-line plumbed design fitted within the water pipe at the site. They are NOT a “clamp-on” device that fits over a ferrous or plastic pipe. To assist you further we have attached data and brochures to provide the knowledge of the new device.



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Unlike the “clamp on” type, our in-line permanent magnetic water conditioners are built with a ferrous carbon steel shell that retains and actually concentrates the magnetic fields inside the treatment chamber shown above not allowing the magnetic fields to stray off.

**Advantages of the permanent in-line Superior® Water Conditioner:**

The Superior Magnetic Water Conditioner has greater “magnetic field flux density” with its permanent magnet located in the centre of the water conditioner exposing the molecules which make up the water and minerals to alternating, reversing polarity electrical charges produced by the magnetic field which travels between north and south poles of the magnet as the water passes through it.

**How does it work to prevent scale build up?**



As the water and minerals pass through the unit in a perpendicular motion, they are intimately exposed to the reversing polarity electrical charges several times, which have a great influence on the molecular structure, causing the dissimilar properties (+ve and -ve ions) of the mineral (eg Ca, Mg, Fe) to repel, rather than attract to one another thus eliminating scale, oxide formation and corrosion. For this to happen, it is imperative that the water cuts or breaks through the magnetic fields at a perpendicular angle, causing a shear force effect on the molecules which make up the water and the minerals. Minerals

will precipitate out of solution into a state of suspension known as aragonite. These suspended solids will flow right on through the plumbing system leaving the equipment clean of corrosion and scale.

**What is the key to Superior® Water Conditioners success?**

The Superior® magnetic water conditioner is the only one on the market that utilizes a special cobalt alloy bar in which we induce a very unique multiple pole, multiple field, reversing polarity, magnetic orientation along the length of the bar as water and minerals pass through the unit providing 100% success in removing scale and corrosion from any volume of water.

Superior® Water Conditioner technology is advantageous for over 400 applications in residential, commercial and industrial markets. It is a valid alternative in Australia and many other countries for applications where conventional water treatment chemicals must be minimized or eliminated. Some of the applications include;

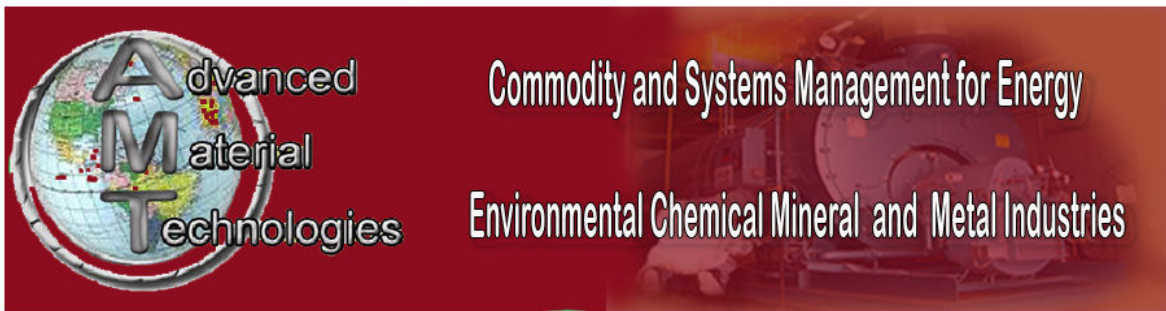
- Ice makers
- Coffee and cappuccino machines
- Hot & cold water dispensers

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- Steam cookers
- Dishwashers
- Water heaters
- Humidifiers
- Open loop geothermal systems
- Boilers & HVAC use of industrial hot water or steam process
- Cooling towers for HVAC use or industrial process cooling
- Evaporative condenser
- Heat exchangers

**Additional benefits have been found to be:**

- Greatly reducing chemical expense associated with water treatment
- The magnetic system “works” and is the permanent solution to water treatment issues giving immediate benefit
- Life and effectiveness of the magnetic system will match the operating equipment
- Elimination of downtime and lost revenue associated with mechanical cleaning of fouled or restricted system components (tubes)
- Greatly reduced water loss (and disposal cost) from flushing or periodic replacement of chemical laden “soup”
- Optimum heat transfer occurrences between water loops and within the water itself (surface tension)
- Elimination of iron corrosion or scale deposits as a result of a positive charge in the water

**Guaranteed Benefits**

- Prevent & remove scaling from pipes
- Decrease surface tension & viscosity
- Less total dissolved solids (TDS)
- Extended longevity of pipes
- Reduced maintenance
- Increase water flow
- Reduce heat stress
- Less energy use

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## 2. Superior MFU Fuel Activator for natural gas and liquid fuels

The “MFU Fuel Activator (natural gas) treatment system” has the capability to reduce gas usage and CO<sub>2</sub> emissions by 5-9 percent.

The Perm-a-Core used in the Fuel Activator for treatment of natural gas is truly unique. It uses a multiple pole, alternating polarity, permanent magnets that direct the lines of confined magnetic forces in vertical and horizontal planes, thereby greatly enhancing the shear factor. The permanent magnet is so unique it took four years for the U.S. patent office to issue the patent; they kept saying, “a magnet cannot have more than 2 poles”. Magnatech Corporation is the only manufacturer in the world that has the technology to make these magnets. The Fuel Activator requires no external energy, no chemicals or additives, has no moving parts and requires very little maintenance, if any.

### After the Installation

- Fuel burned to achieve the same process output reduces by 5% with an opportunity for further reductions up to 9% following further optimisation.
- Reynolds number of the fuel prior to combustion is altered.
- A hotter, better defined, very blue radiant flame is observed.
- Flue stack temperature is reduced.
- Oxygen and CO and particulates in flue gas reduced or eliminated.
- Concentration of thermal NO<sub>x</sub> reduced, despite increased flame temperature, where combustion is below 1800°C.

### Reduction of site emissions

- A 5% reduction in fuel burned results in a 5% totalised pro-rata reduction CO<sub>2</sub>, CO, O<sub>2</sub>, particulates and unburned fuel dramatically reduced.
- The now high levels of excess air acts as an effective means of reducing NO<sub>x</sub> concentration on standard burners and allows low NO<sub>x</sub> designs such as Bloom, Coen etc. to achieve concentration reductions in line with their design parameters despite increased efficiency.

The only important things to know with regards to properly sizing and applying our Fuel Activators to an open-flame fired piece of equipment is pipe size of the fuel line just before it enters the burner and

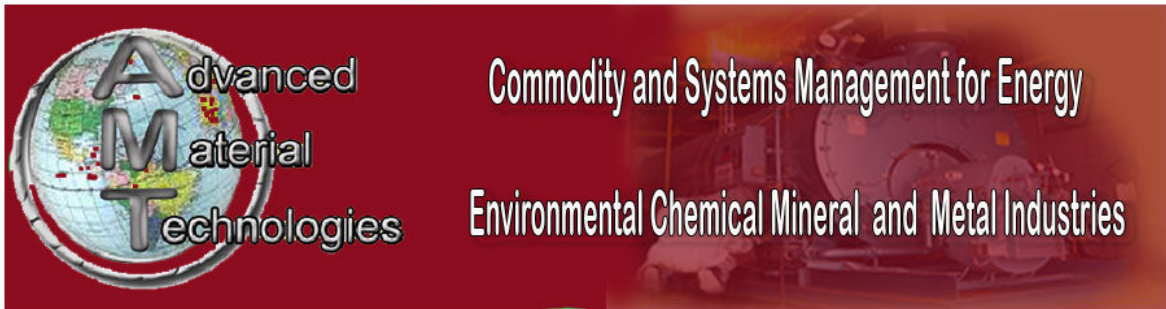
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specifically, with a natural gas fired application, it is also necessary to have a good understanding of the typical gas flow in ft<sup>3</sup>/hr or m<sup>3</sup>/hr.

This is also very helpful information to document in the beginning, along with flame temperature of each burner, so that it can be easier to determine how quick of a payback they will have with the application of our system and also to compare before and after installation records to validate the savings.

We look forward to being of service and assisting with the Carbon neutrality project.

Yours faithfully,

John Pulbrook

Managing Director

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