

Magnetic Devices

We are all familiar with magnets in our daily lives, for example fridge magnets. Magnets are used in a variety of appliances and machines. However, magnetism has been surrounded by myths, and some individuals mislead consumers by providing pseudo-scientific explanations for their properties. There are claims that magnetic devices have the ability to control limescale deposition in hard water. This claim, however, is not supported by credible scientific observation and remains a matter of controversy.

Hard water refers to the dissolved ions of calcium and magnesium sulfates and carbonates that deposit when water is evaporated. Some groundwater sources are naturally “hard” due to their contact with limestone rocks. Limescale is a layer of deposited calcium carbonate that forms on showerheads, water kettles and inside of piping.

Proponents of the so-called magnetic water treatment (MWT) claim that if hard water is passed through a strong magnetic field, the level of limescale formation drops. Most credible experiments performed to assess this claim reported negative results, and there are no confirmed reports of successful MWT in any reputable scientific publication.

Another interesting observation is there are no major suppliers of MWT devices. Suppliers of magnetic devices promote ineffective units using dubious “scientific” explanations that are not true. They take advantage of the lack of knowledge of individuals and sell them ineffective devices.

There are many effective technologies in the market today to control water hardness such as ion-exchange softeners and polyphosphate anti-scalants. These technologies are demonstrable and scientifically proven.

