



## Descal-A-Matic System Protection Technologies

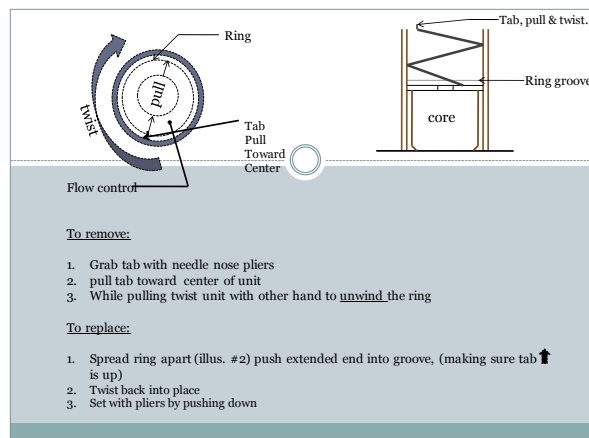
### Cleaning and Inspection Process

#### Descal-A-Matic Units

Descal-A-Matic technology is by its design, a simple to install and use, yet highly effective tool for preventing the buildup of mineral scale and formation of corrosion in water handling equipment. It also removes existing scale. As there are no moving parts (save the water flowing through the units) there are no parts to wear out. The magnets utilized in our technology are designed to be truly permanent, meaning they will not lose strength over time as most magnets will. Properly maintained Descal-A-Matic units will last for as long as the equipment they are protecting...and longer. While seemingly simple in design and appearance, the complex work is done at the molecular level where magnetic influence effects the natural polarity of dissolved minerals in the water (calcium, magnesium and other salts) that contribute to formation of hard, crystalline scale (Calcite Scale). These minerals are not removed from the water stream, rather they lose their natural propensity to stick to the walls of piping, valves, pumps, and tanks; thus they stay in suspension, flowing through the system with the water. What will tend to collect on the Magni-Core element within the unit will be a portion of those ferrous particles; iron oxide and other ferrous bits, that may be present in the water stream. This material will collect on the magnetic core and will need to be cleaned off periodically.

#### Smaller, threaded end units:

For those Descal-A-Matic units with threaded housing ends, that have a Magni-Core with a built-in flow restrictor, a snap ring holds the Magni-Core in place within the housing. The picture below shows how to remove and re-install the snap ring, before and after cleaning and inspecting the Magni-Core unit.



Once the Snap Ring is removed, the Magni-Core will slide out of the housing. At this point the inspection and cleaning of the Magni-Core is the same for all sized Descal-A-Matic units.

**Larger, flanged-end units:**

To remove the Magni-Core from larger, flanged-end Descal-A-Matic units, unbolt the Descal-A-Matic unit from its associated piping. Ensure the unit is “isolated” from the water system by closing the isolation valves at each end of the Descal-A-Matic unit. Doing this will allow the water system to continue running while the Descal-A-Matic unit is being serviced. Flanged-end Descal-A-Matic units are normally installed in piping where the water flow equals the rated flow of the Descal-A-Matic unit. If the pump flow of the water exceeds the rated flow of the Descal-A-Matic unit, the unit may have a separate flow restrictor at the unit outlet end, which will need to be cleaned and inspected as well.

Once the unit has been unbolted from system piping, set the unit on a level surface, away from metal objects, i.e., tools. Slide the Magni-Core out of the unit housing. If there is buildup in the housing the unit may need to be soaked in citric acid for a short period of time to remove the buildup and allow the core to be removed.

Once the Magni-Core is ready for cleaning, use a sponge or cloth and fresh water to remove all iron oxide that may be built-up at the points of magnetic influence; rinse the core with fresh water. Ensure the two ends of the Magni-Core, inside the copper tubing is cleaned as well. Clean the interior of the housing to remove any built-up debris. Re-insert the Magni-Core into the housing the same way it came out. There are arrows indicating water flow direction stamped onto the Magni-Core ends and these stamped arrows must match the direction of the arrow label on the housing exterior.

Ensure the flanged ends of the housing are cleaned and new gaskets used when re-installing units into the water piping.

Depending upon size of the Descal-A-Matic unit and its installation location, it should not take more than an hour to remove, clean, inspect and re-install this technology. Larger sized units, or those located in more restricted areas may take longer.