

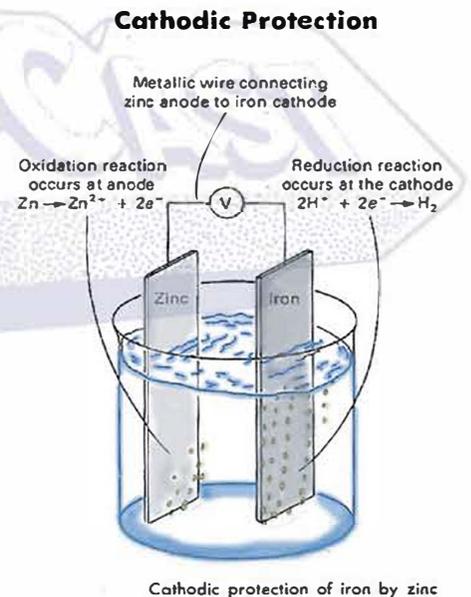
# SALT SYSTEM CORROSION

**Salt System Swimming Pools:** Sanitation of swimming pools using chlorine generators has become the method of choice for the pool professional. The addition of salt to the pool water creates a more corrosive environment for metals in the pool. A number of variables affect the actual corrosion of metals in pools. PH, water temperature, total alkalinity, chlorine levels, salt concentration levels and improper metal bonding can all contribute to corrosion of metals in the swimming pool. It is essential to maintain proper water balance with respect to PH, chlorine, and total alkalinity. Proper monitoring of salt concentration levels is critical in controlling metal corrosion. Salt levels should never exceed the maximum concentrations recommended by the Salt System Manufacturer. In addition, all metal components must be bonded according to accepted construction practices. Even with all these variables under control, metal corrosion in the salt pool is very likely. Additional methods of corrosion protection should be used to avoid problems.

**What is a Sacrificial Anode?** A sacrificial metal anode is used to protect critical metal components in a salt system swimming pool. The sacrificial anode is connected electrically (either through direct contact or by use of a wire) to the metal to be protected. In a salt system pool, for example, a pool heater core will normally tend to corrode as a result of being in contact with the pool water. If this heater core is connected to a properly designed sacrificial anode, the anode will tend to corrode and transfer electrons to the heater core. At the interface between the pool water and heater core these electrons will create a chemical reaction that protects the heater core. The heater core (**cathode**) attracts electrons produced by the corroding sacrificial anode. The electrons react at the surface of the heater core with elements in the water. This reaction protects the heater core at the expense of the **sacrificial anode**. This transfer of electrons from the **sacrificial anode** to the metal to be protected is referred to as **Cathodic protection**. Cathodic Protection is illustrated to the right.

**Examples of Sacrificial Anodes:** All water heaters utilize sacrificial anodes to protect their steel tanks from corroding. The single most important factor in whether a water heater lives or dies is the condition of its sacrificial anode. Ships have anodes installed on their hulls to protect the steel hull from corroding in sea water. Lobster traps utilize sacrificial anodes to prevent corrosion on the ocean floor. Off shore oil rigs, buried pipelines, storage tanks, steel piers, and oil wells all utilize sacrificial anodes to prevent corrosion and premature failure of their critical components.

**Why use TechNodes:** TechNodes are the result of research done by Scientists at the Georgia Institute of Technology. TechNodes are sacrificial anodes designed specifically to protect critical metal components in Salt System Swimming Pools. TechNode In-line is designed to protect any metal components in the pools plumbing, including pool heaters and heat exchangers. TechNode Ladder will protect pool ladders that are submerged in the swimming pool. TechNode Light will prevent corrosion of metal components on underwater lights. TechNode Utility is designed to protect any other metal components in the swimming pool. TechNodes are cast from Mil Spec Zinc, have high surface area to volume characteristics resulting in the most efficient Pool Anodes on the market.



TechNode For Pool Lights



TechNode Utility Anode Skimmer Weight



TechNode For Pool Ladders Sold in Pairs



TechNode In-Line for Heaters/Plumbing

# TECHNODE

SWIMMING POOL ANODES BY

