

**SECTION 05 80 00  
SACRIFICIAL MAGNESIUM ANODES**

**PART 1 GENERAL**

**1.1 WORK INCLUDED**

- A. The CONTRACTOR shall furnish and install magnesium anodes on metal appurtenances as shown in the Drawings. The work includes furnish and installing sacrificial magnesium anodes.

**1.2 QUALITY ASSURANCE**

- A. Garfield Alloys magnesium PVC coated Type 2R-5 anodes or equivalent, with a 1/2 inch diameter by 1 inch deep drilled and tapped core, or equal shall be used.
- B. The anodes are available from Farwest Corrosion Control Company 3825 Paris, Denver, Colorado 80239, Telephone (303) 307-1447

**1.3 QUALITY STANDARDS**

- A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
  - 1. ASTM B 843 – Specification for Magnesium Alloy Anodes for Cathodic Protection

**1.3 DELIVERY, STORAGE AND HANDLING**

- A. Deliver materials in original, tightly sealed containers or unopened packages with the manufacturer's name, labels and product identification.
- B. Materials shall be stored in a secure, dry area until installed.

**PART 2 MATERIALS**

**2.1 ALLOY SPECIFICATIONS**

- A. The magnesium anode shall conform to the following alloy specification:

Al	0.01% max.
Mn	0.80 – 1.1%
Cu	0.002% max.
Si	0.04% max.
Fe	0.03% Max.

Ni	0.001% max.
Other	0.05% each or 0.3% max. total
Magnesium	Remainder

- B. The above shall be in conformance with ASTM B843 for MIC high potential magnesium anodes.

## 2.2 ANODE DIMENSIONS

- A. The anode shall be approximately 4 1/4 inches in diameter, 2 1/4 inches thick and weigh 2 pounds and drilled and tapped for a 1/2 dia. SS stud.
- B. Anodes which are cracked or chipped shall be rejected.

## 2.3 STUD

- A. The stud used to attach the anode to appurtenances, such as the overflow weir and pipe, shall be 304 or 316 stainless steel and threaded to match the threads of the anode.

## PART 3 EXECUTION

- A. Prior to installation of the anode the metal stud shall be wire brushed to remove any coating or rust, for a positive electrical contact.
- B. Anodes that are cracked or chipped during the installation process shall be replaced.
- C. The anodes shall be threaded onto the 1/2 inch diameter stainless steel studs on metal ladders, ladder safety cages and piping as shown in the drawings after the final storage tank cleaning, prior to water tightness testing.

**END OF SECTION**