# **Cathodic Protection & Anode Bags**



#### TYPICAL UNDERGROUND TANK INSTALLATION

## CATHODIC PROTECTION REGULATIONS AND PRINCIPLES

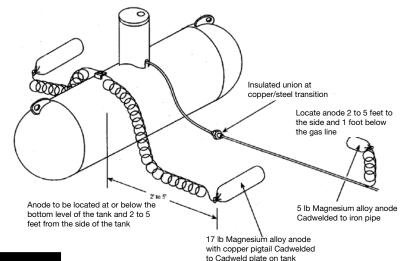
NFPA 58 requires the protecting of underground tanks in accordance with good engineering practice.

Cathodic protection is the accepted method of protecting underground metal structures.

Tanks should be protected by installing anode bags to the factory installed anode pad using the Cadweld method. They should be coated completely, and isolated electrically with the installation of insulated unions.

#### TYPICAL TANK ANODE REQUIREMENTS

| Tank Size                | 17 Lb.<br>Anodes Required |  |
|--------------------------|---------------------------|--|
| 500 Gallons              | 1                         |  |
| 1000 Gallons             | 2                         |  |
| 1990 Gallons             | 3                         |  |
| 3000 Gallons             | 4                         |  |
| 4000 to 5000 Gallons     | 6                         |  |
| 10,000 Gallons           | 8                         |  |
| 15,000 Gallons           | 10                        |  |
| 20,000 Gallons           | 12                        |  |
| 25,000 to 30,000 Gallons | 14                        |  |



Soil conditions and other variables may affect number of anodes required. Consult engineer or other appropriate professional.

#### **IRON PIPE ANODE REQUIREMENTS**

| Pipe<br>Size | Install One 5 lb. Anode<br>For This Length of Pipe |
|--------------|--|
| 3/4"         | 500'   |
| 11/4"        | 450'   |
| 11/2"        | 425'   |
| 2"           | 400'   |

| Pipe<br>Size | Install One 17 lb. Anode<br>For This Length of Pipe |
|--------------|---|
| 3"           | 700'  |
| 4"           | 500'  |
| 6"           | 400'  |
| 8"           | 350'  |

### **ANODE BAGS**

**Cathodic Protection** is the accepted method of protecting underground metal structures. Tanks should be protected by installing anode bags to tank anode bracket or lifting lug by Cadweld method or by connecting wire directly to anode lead provided by tank manufacturer.

They should be coated completely and isolated electrically with the installation of insulated unions.

### Magnesium Anode Bags are:

Tel: 800-628-5044

91% magnesium, 3% zinc, 6% aluminum alloy.

The anodes are prepackaged in cloth bags with low resistivity, quick wetting prepared back fill consisting of 75% hydrated gypsum, 20% bentonite, and 5% sodium sulphate.

Anode bag is placed into wet hole at least 2' from the tank and at a depth greater than that of the tank. Wet area above anode.



| RMI Part No. | High Potential | Size |
|--------------|----------------|------|
| MG-17        | MG-17-HP       | 17#  |
| MG-9         | MG-9-HP        | 9#   |
| MG-5         | MG-5-HP        | 5#   |

Fax: 800-243-8341

#### **SPIKE ANODES**

Spike Anode is for protection of small underground gas lines such as copper tubing. Comes standard with 36" cable and stainless steel adjustable pipe clamp.

| RMI Part No. | Description                                  |
|--------------|--|
| MG-DR-1.0    | 1 Pound anode 3/4" x 12" w/cable and clamp   |
| MG-DR-1.5    | 1.5 Pound anode 3/4" x 18" w/cable and clamp |
| MG-DR-Clamp  | Anode Clamp                                  |

NFPA 58 REQUIRES THE PROTECTION OF UNDERGROUND TANKS IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE.



Anode connection and testing equipment listed in service tools section

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