ZINC BRACELET ANODES
SPECIFICATIONS & INSTALLATION

Provide a method to easily install cathodic protection on riser pipes, vent lines, swing joints, fill pipes, or flex tubing ends which are used in fuel dispensing systems. This application is specifically suited to underground tank installations at wholesale or retail gasoline service station installations. Mechanical clamping will achieve a circuit between the anode and the base metal of the pipe without requiring a thermite weld or brazing operation for attachment. Attachment by clamping must satisfy all requirements of attachment as outlined by standard API-1632 of the American Petroleum Institute. The line or flex joint being protected with the anode may also be monitored for anode function. The anodes are available in various sizes to fit pipe sizes from 1 1/2" to 4". The anode is to be of quality Zinc material satisfying ASTM B-418 Type II that will provide protection for new or retrofit applications. Life of the anode is dependent upon the conditions & environment the anode is exposed to. Material certifications must also be available upon request.

INSTALLATION

SOIL TESTING: Soil tests must be performed by a competent corrosion expert well acquainted with the area. Anode data will be based on the worst case corrosion situation at the location under study.

INSTALLER: The Installer must be competent and state licensed in all phases of anode installation and testing. The bracelet Zinc anode will work only as good as the quality of the initial installation.

METHOD OF ATTACHMENT: Scrape or grind surface coating of pipe to be protected to the base metal where V of the anode bolt will make positive electrical contact. Push anode V bolt over pipe or flex connector end, making sure the bolt base makes direct contact with the bare metal. Locate strap over threaded ends and tighten nuts. If anode monitor wire is to be attached, use THW#12 Copper Wire. Attach one bare end of wire around bolt threads between two washers and lock with hex nut.

ANODE TESTING: Run test leads of an ohmmeter from the surface of the Zinc anode to the bare pipe metal or the inside surface of the pipe located a minimum of 3’ (three feet) from the anode. Zero resistance should be present. If resistance is indicated, anode clamp up should be checked or the anode should be relocated along the pipe. All anodes must be tested before cover up.

BEFORE COVER UP: Except for the Zinc anode, all bare or exposed metal must be coated with an approved dielectric corrosion protectant material similar to epoxy coal tar, or fiberglass, etc.

It is recommended that the Zinc portion of the bracelet anode be covered with one of the following:
A. Powdered or granular Gypsum
B. 50/50 mix of Gypsum & Western Bentonite
C. Prepared back fill consisting of 75% Gypsum (hydrated)
   20% Bentonite
   5% Sodium Sulfate (Na2 S04)

Fill the hole containing the bracelet anode, attached to the system, up to the anode itself, then add the amount of A, B, or C above to cover the Zinc anode. Finish filling the hole with the dirt originally removed & tamp. Soak the area of the buried bracelet with water. The above backfills A, B, & C can also be mixed with water to make a slurry to place in the hole to cover the Zinc anode. A slurry may be more convenient for certain conditions than a dry mix.

The reason for the use of one of the above backfills placed next to the Zinc anode is to reduce the tendency of Zinc to form an electrically resistant fill (an insulating film) caused by the Zinc reacting with the surrounding soil.

OVERVIEW

These guidelines are for protecting bare or coated steel pipe or steel ends on flex connectors. Always use the most corrosive soil conditions at the job site to determine anode requirements.
Typical Anode Locations

Anode Dimensions

All Clay & Bailey Bracelet Anodes are cast out of quality Zinc, satisfying ASTM B-418 Type II requirements. Material certifications are available upon request.

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>SIZE</th>
<th>DESCRIPTION</th>
<th>WT</th>
<th>A</th>
<th>B</th>
<th>C</th>
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<td>1 1/2&quot;</td>
<td>ZINC BRACELET ANODE</td>
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