

Flexible Anode Data Sheet

Impressed Current



- Easy to Install -- Cost Effective
- Arrives on site Ready to Lay in Place
- Follows Structure Symmetry so achieves maximum cathodic protection efficiency by running a continuous anode parallel to the cathode.
- 100% Factory Connections – high QC
- Continuous Anode Technology
- Optimized Current Distribution
- Optimized Power Efficiency
- Optimized Low Groundbed Resistance

Applications 3mm Ø wire

New Construction Tank Bottom CP
Replacement Tank Bottom CP

Applications 1.5mm Ø wire

Parallel Anode Pipeline CP
Underground Cable Ducts CP

* Customized anode specification on request

DEVELOPED FOR IMPRESSED CURRENT CATHODIC PROTECTION (ICCP)

For applications that require maximum distribution and minimum anode current attenuation in confined spaces. Ideal for distribution of small amounts of CP current over a large surface area. Especially useful in protecting new construction of Above Ground Storage Tanks (AST) bottoms or replacement tank bottoms. Can also be used to offer CP as a continuous anode parallel to a pipeline. The MMO Anode wire is connected to the header cable at preset intervals around the loop. The spacing of the connections is determined at the design stage.



This system is ideal where space is limited and the anode is to be installed close to the tank bottom or the space between the tank bottom and the secondary containment liner. While the liner is designed to protect the tank bottom against leaks it can also isolate the tank bottom where traditional CP systems are used. For these situations the anode is available with a mesh sock or sleeve that offers protection against wire to tank bottom shorts. The only connections necessary when installation is taking place are at the rectifier terminal box as all header to anode connections are made at the factory. This makes installation quick and easy.

The system is laid in a series of concentric loops that are spaced between 2 and 8 feet apart (normally 5 feet) and follow the profile of the tank rim and are laid equidistant from the rim. The two ends of each loop are then brought out to a terminal box. This provides redundant connections for each loop which allows each loop to be operated independently or disconnected altogether.

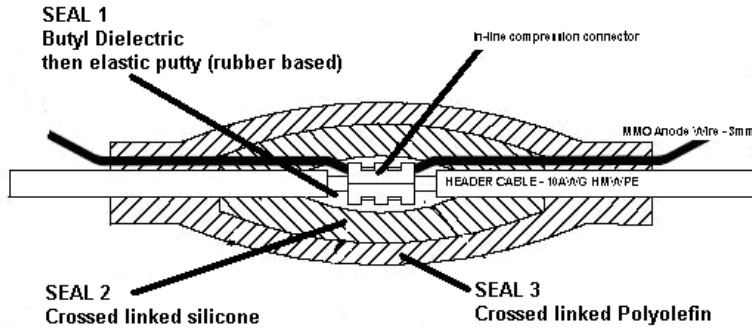


DIAGRAM SHOWING CONNECTION AND SEALS USED IN PRODUCTION OF FLEXIBLE ANODE SYSTEM

DIAGRAMS SHOWING TYPICAL LAYOUT USED FOR AST APPLICATIONS.

Fig 1: Typical Undertank side view layout using the loop system

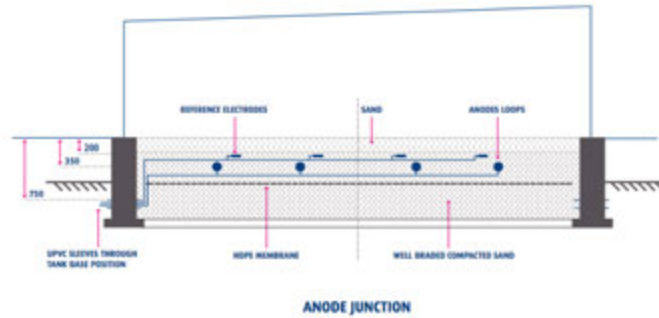
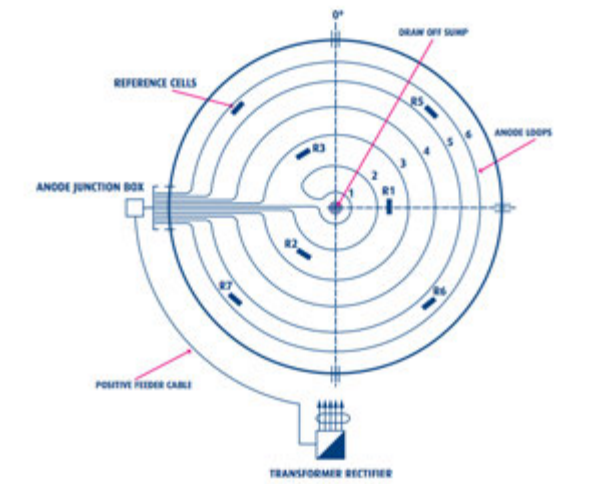


Fig 2: Typical Undertank loop layout



TECHNICAL DATA SHEET

NMT 70

MIXED METAL OXIDE ACTIVATED TITANIUM WIRE PIGGYBACK ANODES

Activation: Noble Mixed Metal Oxides consisting of IrO₂ and Ta₂O₅ **Substrate Material:** Titanium to ASTM Grade 1 or 2 **Working Environment:** Evolution of O₂, Cl₂ or a combination of both

Nominal Design Life: Typically 20 years when operating at an anode current density of 100 A/m² – coating loading can be adjusted for any combination of

current output and design life.

Dimensions of Piggyback Anode:

Dimension of Ti Wire:	1.5 mm dia. or 3 mm dia.
Current Output of Piggyback :	1.5 mm dia. Ti Wire – 0.5 A/m ; 3.0 mm dia. Ti Wire – 1A/m
Lengths:	From 1 m to 50 m* *Longer lengths are available on request

Header Cable: Typically 10 mm² or 16 mm² XLPE/PVC connected to the MMO/Ti wire anode every 10 m, header cable or spacing between connections can be adjusted to suit the particular soil resistivity of operation

Cable Tail: a cable tail, typically of 1 m to 5 m can be provided at one end or both ends of the Sock Anode to allow connection to the power feed from the TR