

MMO String Anodes

MMO String Anode are high-efficiency, long-life anode assemblies used in Impressed Current Cathodic Protection (ICCP) systems. Their core consists of a titanium tube substrate coated with precious metal oxides (such as iridium-tantalum oxide), combining excellent electrical conductivity with corrosion resistance. The assembly integrates factory-installed lead wires using a center connection structure, sealed with epoxy resin encapsulation and multi-layer protection to ensure reliable electrical contact and waterproof performance, allowing for direct installation in soil, freshwater, or seawater environments.

MMO string anodes are widely used for the cathodic protection of long - distance oil and gas pipelines buried underground. They can be installed parallel to the pipeline or vertically buried in deep well, providing a uniform current distribution along the pipeline's length. This helps prevent corrosion in the soil environment, where factors such as soil resistivity and moisture content can vary.

■ PRODUCT SPECIFICATIONS

Titanium substrate: ASTM B338 Grade 1 or Grade 2

MMO Coating: $\text{IrO}_2/\text{Ta}_2\text{O}_5$ (soil/Freshwater environment) or $\text{IrO}_2/\text{RuO}_2$ (sea water environment)

Outer Diameter: $\Phi 19/25.4/32\text{mm}$

Wall Thickness: 0.9-2.0mm

Length (single piece): 500/1000/1200/1500mm

Cable: PVDF/HMWPE, 10-16mm² (as required), Length can be customized.

Connecting Resistance: $\leq 0.01 \Omega$

Current Density: 50-100A/m² (soil/Freshwater environment); Up to 600A/m² (seawater/High chloride environment)

Service Life: ≥ 20 years



■ KEY FEATURES

1. More than 20 years
2. High current output
3. Harsh environments withstand
4. Super coating adhesive
5. Excellent coating uniformity

■ APPLICATIONS

1. Water Tank Protection
2. Deep Well Anodes
3. Marine Structures Protection
4. Tank Bottom Protection
5. Soil, Brackish and Seawater Applications