

# LIDA<sup>®</sup> TSA<sup>™</sup> Anodes

**A mixed metal oxide (MMO)  
on titanium anode material configured**

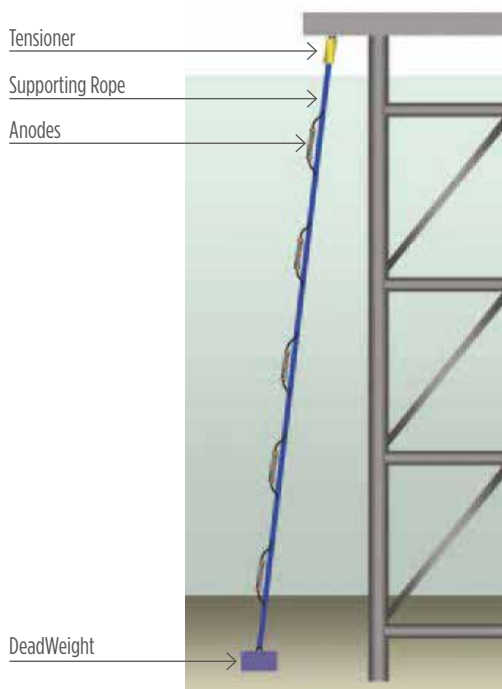
## **A tension string anode structure:**

- Multiple LIDA<sup>®</sup> anodes and cable are assembled on a supporting rope.
- Spacers insure the anode is in complete contact with seawater.
- The LIDA TSA<sup>™</sup> is connected from the platform to a dead weight on the sea floor.

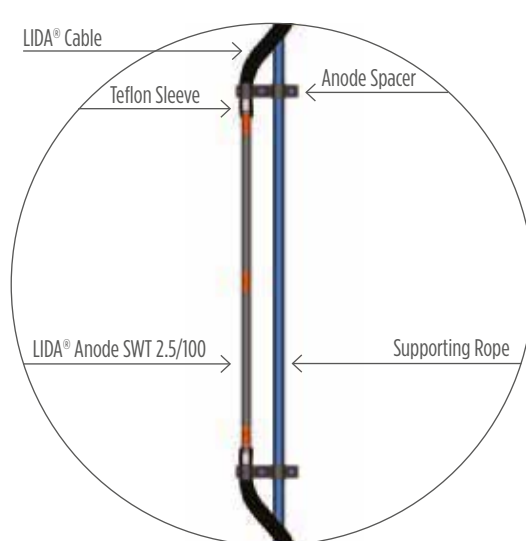
## **Performance advantages**

- Fewer anodes required with higher current density
- Current output is easily adjusted
- Ease of installation reduces cost of cathodic protection system
- Greater savings in deep water installations
- A twenty year history of successful cathodic protection in platforms from 15 to 120 meters in depth

### **Tensioned Anode String Installed on a Steel Jacket**



### **Tensioned Anode String**

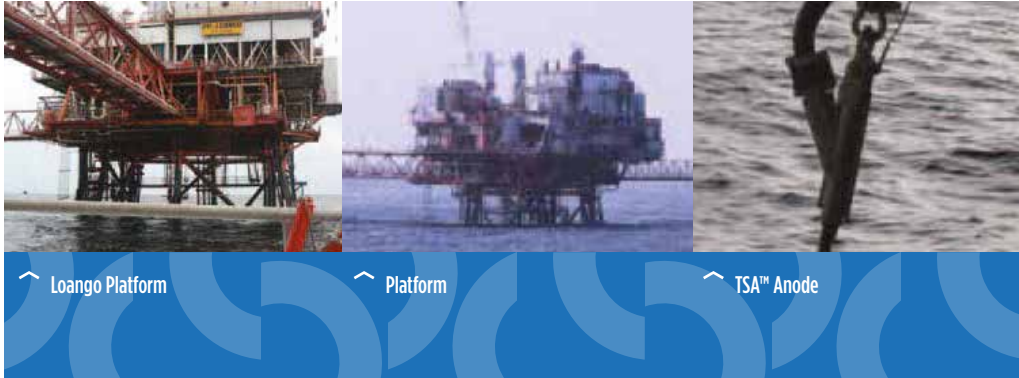




## Case Study:

Loango Field Platforms operated by Agip Recherches Congo retrofit a LIDA TSA™ system over a poor performing galvanic system.

The LIDA TSA™ operated successfully from 1987 to 2005 when it was replaced with a new system to coincide with the 20 year extension in the platforms planned operating life.



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