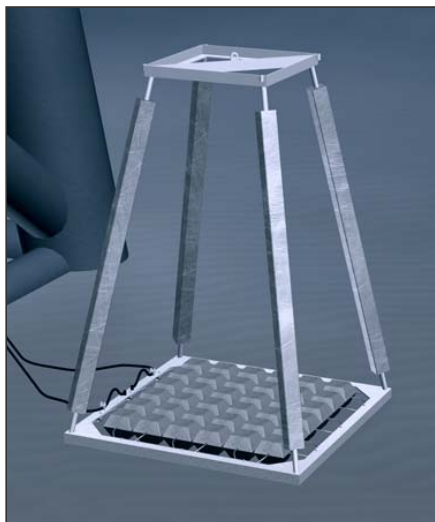


## RetroPod™

### Cathodic Protection Life Extension for Platforms



RetroPod in situ sits 10 ft. from the base of the structure on bottom, either inside or outside of the jacket



Concrete mattresses provide ample ballast to insure stability at the base



#### Product Overview

The RetroPod system has saved many operators hundreds of thousands of dollars in offshore CP retrofit costs. This is achieved by installing an optimized array of sacrificial anode material (capable of delivering up to 20 Amperes) in less than a quarter of the time it would take to install the equivalent CP using clamp-on anode arrays.

An installed RetroPod is located on bottom, just inside or outside the base of the jacket. This semi-remote location greatly improves current distribution, and the installation can be accomplished with divers or ROV's using the RetroClamp™ tie-back system.

Small, shallow 4-pile jacket structures can often be retrofitted with only one or two pods, thus several can be completed in a single offshore day.

Four small booster anodes (shown on reverse) are added to the RetroPod when a structure has lost all cathodic protection. The additional upper anode array provides a 15% current boost for the first 2-3 years to quickly re-establish cathodic polarization.

The Like all of Deepwater's innovative CP retrofit solutions, the RetroPod is guaranteed to perform. Hundreds have been successfully installed.

#### Main Benefits

- Reduces retrofit installed cost to approximately 1/3 of a conventional clamp-on fix. We have many direct comparisons documented.
- Improved safety; no direct diver intervention with heavy load. Safe 24 hour operations maximizes offshore efficiency.
- Optimized shape reduces mutual anode interference, gives excellent bottom stability, and provides ease of handling offshore.
- No increased weight loading on an ageing structure and no problems finding places to clamp anodes.
- Easy to inspect during routine subsea inspections; current output from each pod can be accurately verified with a simple stab.
- Modular construction allows simple re-configuration for 10 – 25 year life extension in 5-year increments.



The RetroClamp Tie-Back in situ. No failures have ever been reported.

### Materials

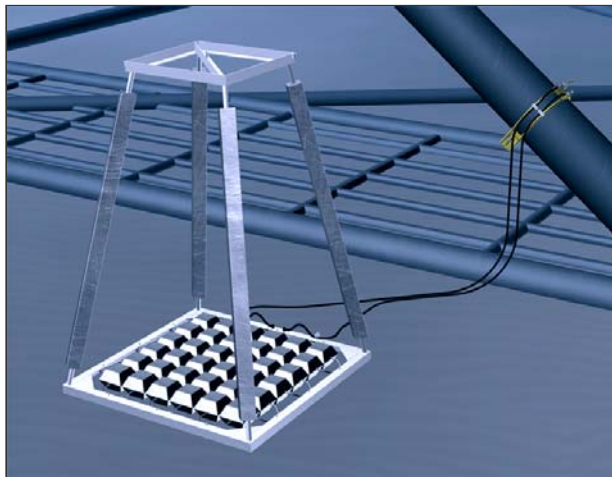
RetroPod uses the highest available quality of sacrificial anode alloys. Typical ambient and cold water Al-In-Zn compositions are used. See product CD for details. All steel fabrication uses ASTM A 36 material and is performed in our own manufacturing facility as well as at sub-licensed facilities in various regions. Sub-licensees list available upon request

### RetroPod System Design Life

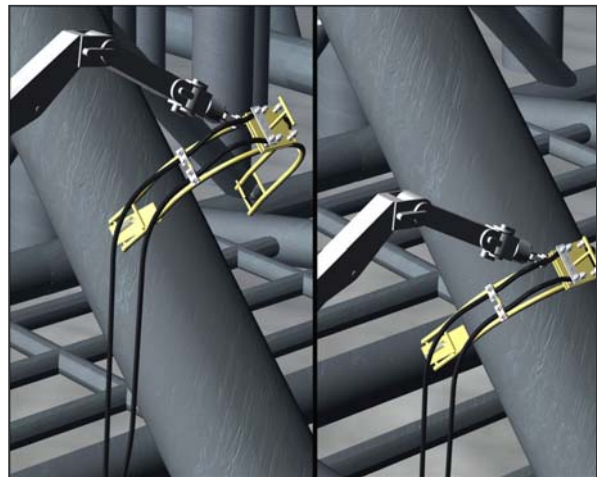
10 – 25 years (depending on customer requirements)

### RetroClamp™ Tie Back

Each RetroPod is shipped with one or more RetroClamps; typical cables are 2 x 25 feet #4/0 AWG heavy duty flex cables. Thousands of these clamps are now in service around the world, and many have been installed by ROV. The installation efficiency of the RetroClamp has saved our customers hundreds of thousands of dollars. For more information about the RetroClamp: [www.stoprust.com](http://www.stoprust.com) or email [sales@stoprust.com](mailto:sales@stoprust.com)



The RetroPod and RetroClamp in situ. The Vertical – Diagonal member provides a convenient attachment point..



This illustration shows the Clamp installed by an ROV.

