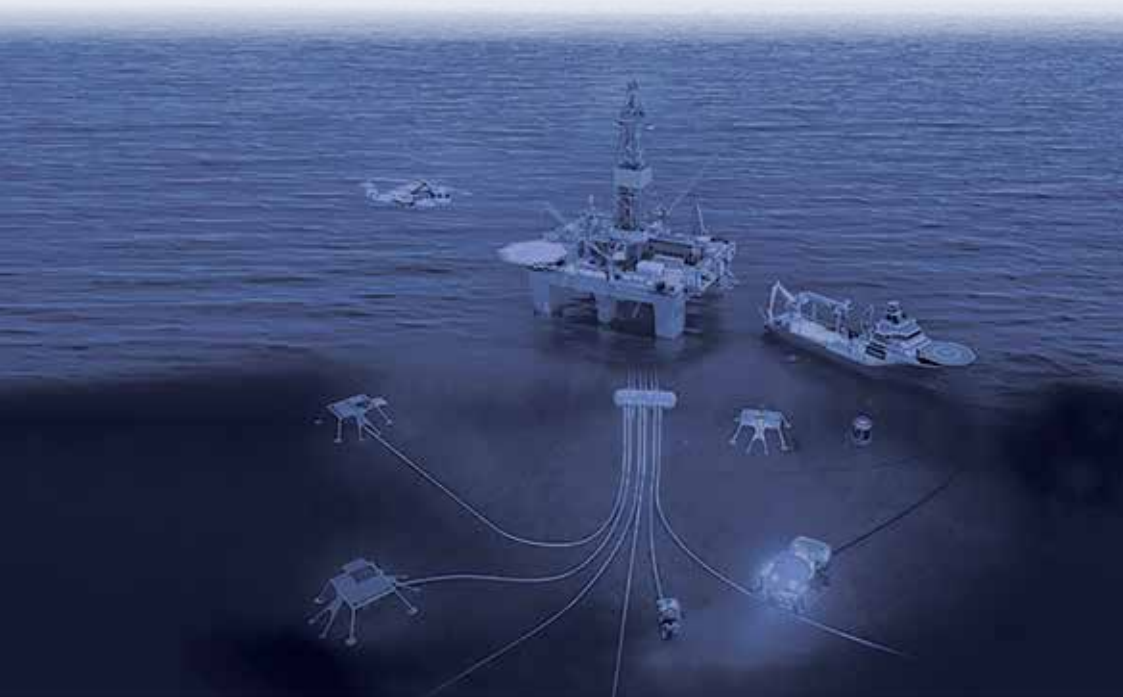


Anode Systems for Deep Subsea Production

GALVOTEC CORROSION SERVICES has been supplying custom built anode sleds for subsea applications since 1997. These anode systems are designed to be used on a variety of deep ocean production systems, such as foundation piles, anchor piles, suction piles, well tie backs and manifolds, PLETs, PLEMs, cluster manifolds, multi-well templates, pipelines or any other type of subsea production system component. Sled designs can be as simple as a single anode or can be complex multi-anode configuration assembly. These assemblies can be used for initial anode life, if the structure was installed without or with inadequate cathodic protection, or as life extension retrofit anode systems.

Utilizing anodes from our ISO Certified anode foundry, which has been making high quality anodes since 1984, we can supply anode assemblies ready to install to the subsea structure with proven ROV installation bonding clamps. The Galvotec III CW (Cold Water) alloy is the only proven alloy for use in deep cold environments, having been produced by Galvotec for major offshore oil companies since its development in the early 1990's.



Clamps for Deep Subsea Production

As a result of our Exclusive Representative Agreement with Imenco, a leader in deep-ocean ROV tooling, our anode sleds can now be connected to all types and shapes of structures through a variety of specialized ROV compatible bonding clamps. These clamps can be used to attach to tubular members, beam and flange edges, flange bolts, existing anode cores, or even through existing pad-eye holes, thus ensuring a reliable electrical connection of the anode sled to the structure being protected. The clamps available are the:

Humboldt Expansion Clamp, for attaching to a structure through an existing hole such as a pad eye hole or excess docking or flooding holes;



The Humboldt Radial and Axial Bolt Clamps, for attaching to existing bolts and studs;



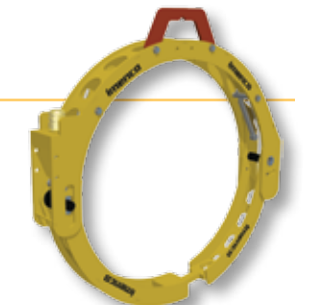
The Piranha Flange Clamp, for attaching to the edge of pipeline flanges or any thickness web or flat bar such as edge of H-beam or side of a pad eye;



The Caiman Anode Core Clamp, for attaching to existing standard tubular anode cores of 2", 3" or 4" pipe sizes or to any pipe or tubular between 2" and 4" pipe size;



The Anaconda Tubular Clamp (right), for full circumference locking attachment to tubular members from 6" up to 38" pipe. The Payara Pipeline Bonding Clamp (left), for all pipelines from 6" up to 38".



Payara Pipeline Clamp

Anaconda Tubular Clamp

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