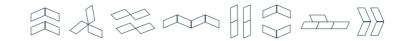


RETROFIT ANODE PIRANHA® L CLAMP



"The Piranha® L is intended for mounting to plates and round bar/pipe on subsea structures. It can be equipped with a range of different jaw sizes, suitable for plate thicknesses and bar diameters from 35mm up to 55mm."





Intelligence built in

The main benefits of choosing an Imenco Piranha® Clamp are ease of installation, flexible sizing, and proven long-term integrity.

The clamp is guided into place by ROV and tensioned with an Imenco Clamp Installation Tool (ICIT) to ensure a good connection.

Most subsea structures and components have some sort of plate as part of its design. This makes the Piranha® L Plate Clamp the most versatile IMENCO Retrofit Anode Clamp. Anodes may be attached directly to the clamp, or by a bonding cable to an anode sled.

Piranha® L is typically used for the placement of sacrificial anodes, electrical continuity between different entities or to connect instrument packages to a structure. Anodes may be attached directly to the clamp, or by a bonding cable to an anode sled/anode bank.

Features

- Field proven with more than 3000 clamps installed
- Simple and robust design
- Durable and compact design dimensions
- Excellent mechanical grip
- Quickly diver-less ROV installation
- Anode attachment flexibility, clamping on plate, edges or ends of rods
- Designed for variety of plate/rod thicknesses
- Standardized installation tool and ROV interface

Advantages

- Quick installation, typically takes 15min to install a clamp
- Provides excellent mechanical attachment,
 Typically, > 10 ton
- Provides excellent electrical contact / grounding, Typically, <100 $\mu\Omega$ connection resistance
- Mechanical grip (tension)
 - Will not loosen by vibration
 - Fatigue resistant against expected loads
- Electrical Resistance house to connected structure
 - Can be used on coated or uncoated structures.
 - Will bite through existing rust layers on structures

Applications and options

The Piranha® Clamps has a proven track record of being easy to install and providing a very strong hold and an effective electrical connection. By use of a hydraulic torque tool, the clamps are installed onto plates or rods, consistently and without any unnecessary strain on the ROVs.



RETROFIT ANODE PIRANHA® M CLAMP

The Piranha® L clamp is primarily composed of the housing, and the jaw. The housing design is suitable across the entire 55-90 mm range. The jaw size is selected on a project-specific basis as per the below table.

| Clamp Type | Plate Thickness (mm) | Clamp Dimensions (mm) | | | | | | | |
|---------------|----------------------------|-----------------------|----|-----|-----|-------|-------|----|--------|
| | | Α | В | С | øD | E | F | G | Weight |
| Piranha® L | 55-60 mm | 75 | 20 | 165 | 180 | 54-61 | 37-40 | 46 | 15Kg |
| Piranha® L | 60-65 mm | 75 | 20 | 165 | 180 | 59-66 | 37-40 | 46 | 15Kg |
| Piranha® L | 65-70 mm | 75 | 20 | 165 | 180 | 64-71 | 37-40 | 46 | 15Kg |
| Piranha® L | 70-75 mm | 75 | 20 | 165 | 180 | 69-76 | 37-40 | 46 | 15Kg |
| Piranha® L | 75-80 mm | 75 | 20 | 165 | 180 | 74-81 | 37-40 | 46 | 15Kg |
| Piranha® L | 80-85 mm | 75 | 20 | 165 | 180 | 79-86 | 37-40 | 46 | 15Kg |
| Piranha® L | 85-90 mm | 75 | 20 | 165 | 180 | 84-91 | 37-40 | 46 | 15Kg |

