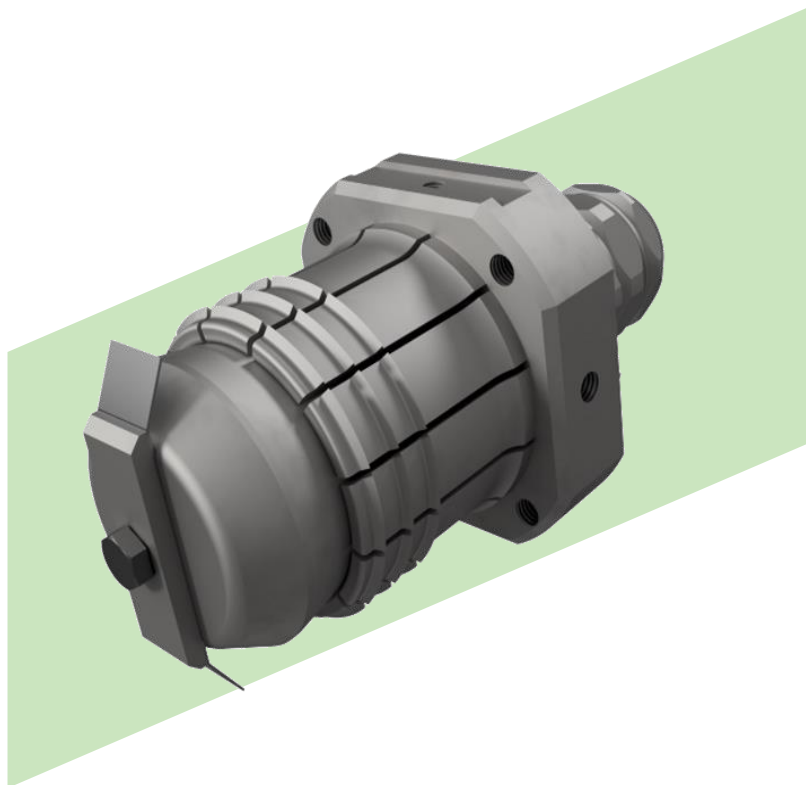
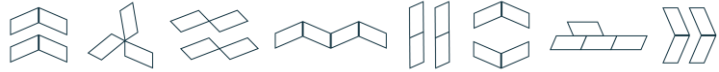


# RETROFIT ANODE

## PIRANHA<sup>®</sup> X EXPANSION



**“The Piranha<sup>®</sup> X Expansion Bolt Clamp is intended for mounting in holes and pad-eyes.”**



### 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® M 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® X 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

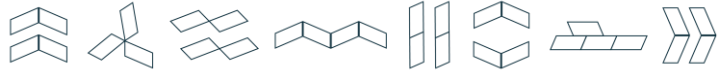
- Field proven with more than 3000 clamps installed
- Simple and robust design
- Durable and compact design dimensions
- Excellent mechanical grip
- Quickly diver-less ROV installation
- Anode attachment flexibility, clamping on plate, edges or ends of rods
- Designed for variety of plate/rod thicknesses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

The Piranha® X clamp is primarily composed of the housing, and the jaw. The housing design is suitable across the entire 43-87mm range. The jaw size is selected on a project-specific basis as per the below table.

Clamp Type	Hole ID (mm)	Clamp Dimensions (mm)								Weight
		A	B	C	øD	øE	F	G	H	
Piranha® X	43mm	74	20	132	101	43	65	46	37	3,6Kg
Piranha® X	48mm	74	20	132	101	48	65	46	37	3,8Kg
Piranha® X	57mm	74	20	132	101	55	65	46	37	4,4Kg
Piranha® X	73mm	74	20	132	101	73	65	46	42	4,6Kg
Piranha® X	87mm	74	20	132	101	85	65	46	42	5,2Kg

