

ProFit™

PRODUCT DESCRIPTION

The existing cathodic protection (CP) systems of offshore structures, such as oil and gas production platforms, offshore wind foundations, and steel pipe piles for bridges and wharves, may become insufficient over time or may no longer meet protection requirements when the facility is required to remain in service beyond its original design life. In such cases, additional cathodic protection capacity may be required to support continued operation.

Sled-type and string-type aluminum anodes provide a practical retrofit solution for the maintenance and life-extension support of existing offshore structures.

PRODUCT FEATURES

System Configuration

- Available in sled-type and string-type retrofit systems for offshore structures.

ROV-Compatible Design

- Proprietary connection structure suitable for ROV-assisted installation and subsea connection.



SLED / STRING ANODE



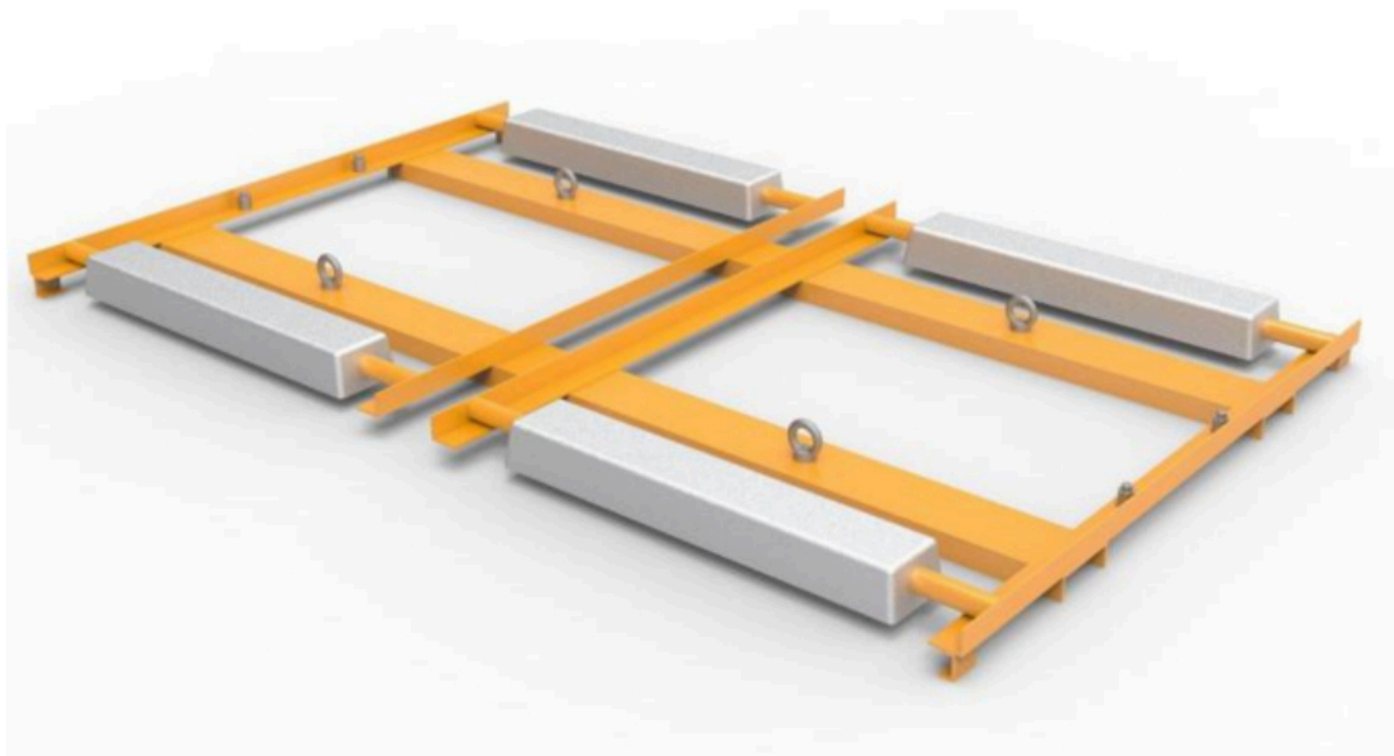
PRODUCT PERFORMANCE

Life Extension Support

- Provides an efficient and cost-effective retrofit solution to compensate for depleted or insufficient anodes, supporting offshore asset maintenance and life-extension programs.

Installation Efficiency

- Sled configurations can be deployed directly on the seabed and may avoid underwater welding when used with the specified mechanical connection system.

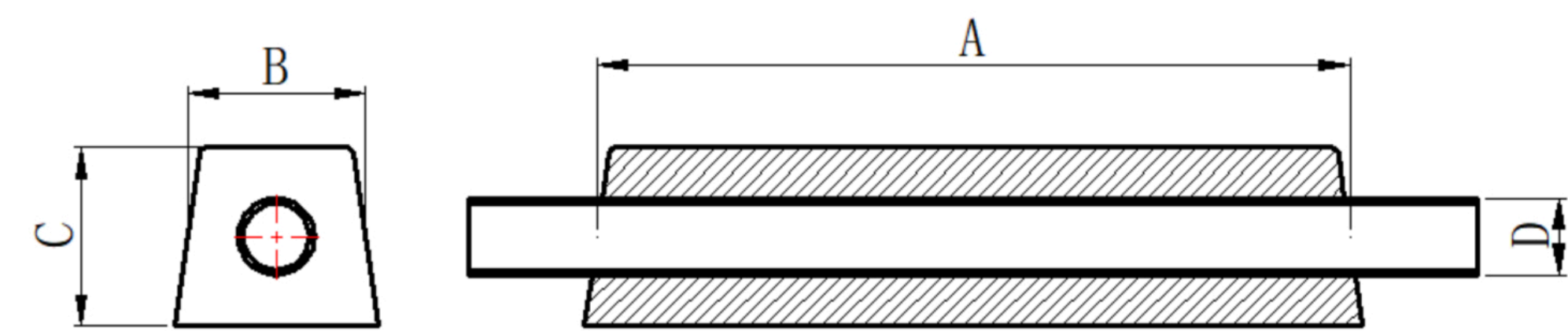


Reference	Title
DNV-RP-B401 (2021-05)	CATHODIC PROTECTION DESIGN
NACE SP0387-2019	METALLURGICAL AND INSPECTION REQUIREMENTS FOR CAST GALVANIC ANODES FOR OFFSHORE APPLICATIONS
EN ISO 9351:2025	GALVANIC ANODES FOR CATHODIC PROTECTION IN SEAWATER AND SALINE MUD
NACE TM0190-2022	IMPRESSED-CURRENT LABORATORY TESTING OF ALUMINUM AND ZINC ALLOY ANODES
NACE SP0492-2016	METALLURGICAL AND INSPECTION REQUIREMENTS FOR OFFSHORE PIPELINE BRACELET ANODES

MODELS AND SPECIFICATIONS

Sled Anode

Sled anodes are suitable for maintenance and life-extension support of existing offshore structures, providing a seabed-deployed retrofit cathodic protection solution where additional CP capacity is required.



Single anode parameters

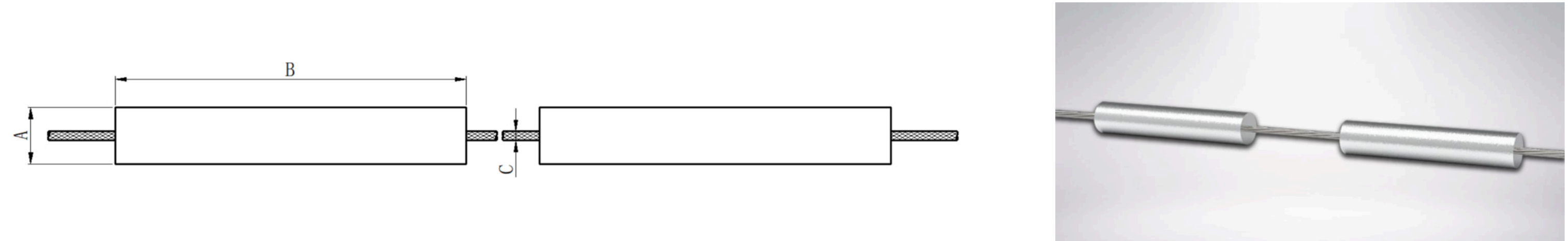
No.	Anode Size A*B*C (mm)	Anode Net Weight (kg)	Current Output (A)		Design Life (Years)	Steel Core Tube Size D (mm)
			Initial Stage	Final Stage		
1	1100*180*180	90.4	2.14	1.30	20	Φ50*6
2	1500*220*220	179.2	2.85	1.80	30	Φ73*8
3	2100*240*240	303.1	3.66	2.38	40	Φ73*8

Four-anode sled assembly parameters (4 anodes per assembly)

No.	Current Output (A)		Design Life (Years)
	Initial Stage	Final Stage	
1	8.5	5	20
2	11.4	7.2	30
3	14.6	9.5	40

String Anode

String anodes are suitable for maintenance and life-extension support of existing offshore structures and are used with Advance Technology’s proprietary connection system.



Single anode parameters

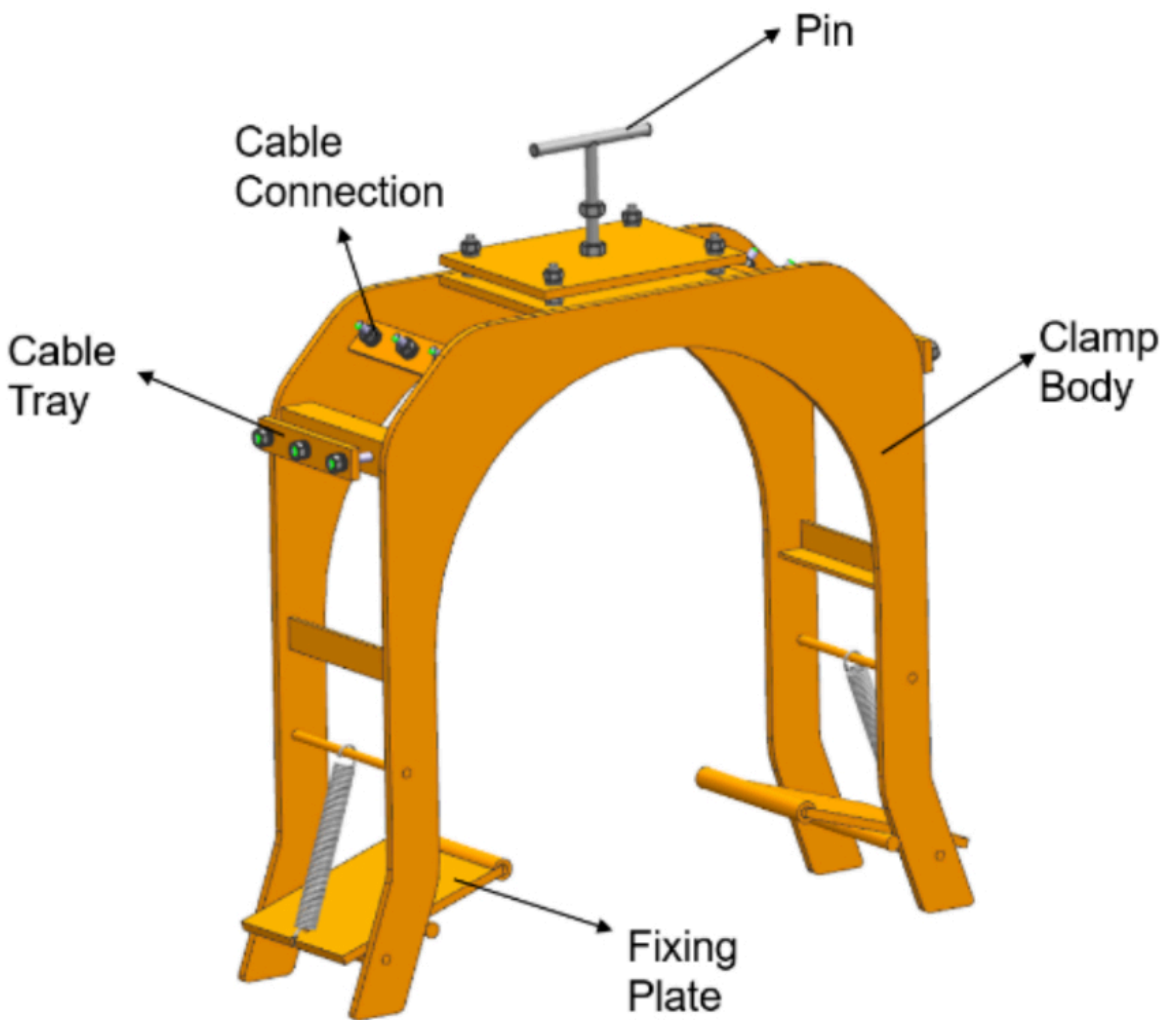
No.	Anode Size A*B (mm)	Anode Net Weight (kg)	Current Output (A)		Design Life (Years)	Wire Diameter C (mm)
			Initial Stage	Final Stage		
1	Φ160*1000	53.7	1.14	0.59	20	Φ15.5
2	Φ180*1400	96.3	1.50	0.79	30	Φ17
3	Φ200*1800	152.3	1.82	0.99	40	Φ23

Anode string length and anode quantity can be selected according to project-specific CP design requirements and installation conditions.

Anode Clip

The clip is designed to provide a robust connection between the anodes and the protected structure.

Top Pin	Pierces the coating and establishes electrical connection.
Cable Connection	Fastens the copper cable.
Cable Tray	Relieves cable stress and secures cable position.
Fixing Plate	Secures the clamp to structures of various sizes.





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