

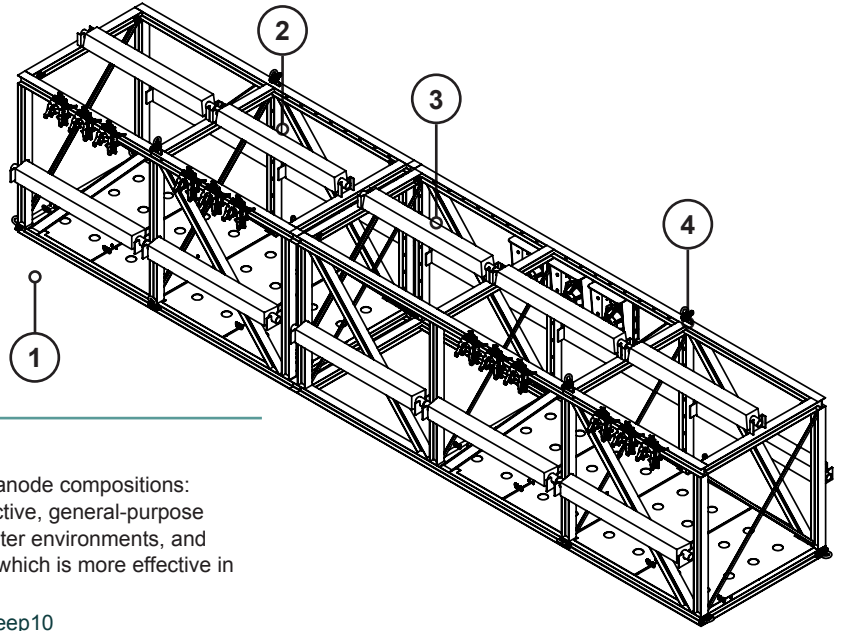
DEEPWATER

RETROPOD™ XL

General

RetroPod LP is a retrofit sacrificial anode system designed to maximize current output with reduced installation time. The optimized shape increases stability, reduces mutual interference between anodes and increases ease of handling offshore.

Note: This configuration is not recommended for use in water depths less than 35 ft [10.7 m].



Anode composition / electrical properties

Description

RetroPod LP is available with two anode compositions: Deep10 alloy, designed as an effective, general-purpose offshore alloy for use in tropical water environments, and Deep7 alloy with low iron content, which is more effective in cold, deep water.

Composition (%)	Deep7	Deep10
Iron (Fe)	0.07 max.	0.10 max.
Silicon (Si)	0.10 max.	0.10 max.
Copper (Cu)	0.003 max.	0.006 max.
Zinc (Zn)	4.75 - 5.25	3.00 - 6.00
Indium (In)	0.015 - 0.025	0.010 - 0.020
Titanium (Ti)	0.025 max.	0.025 max.
Cadmium (Cd)	Part of others	Part of others
Others (each)	0.02 max.	0.02 max.
Aluminium (Al)	Remainder	Remainder
Open circuit potential (sw)	(-) 1.08 V vs Ag/AgCl	(-) 1.08 V vs Ag/AgCl
Closed circuit potential (sw)(1)	(-) 1.05 V vs Ag/AgCl	(-) 1.05 V vs Ag/AgCl
Seawater capacity @ 25°C (2)	1100 AHr/lb [2420 AHr/kg]	1100 AHr/lb [2420 AHr/kg]
Seawater capacity @ 5°C	1100 AHr/lb [2420 AHr/kg]	Variable
Seabed Mud Capacity @ 25°C	950 AHr/lb [2090 AHr/kg]	950 AHr/lb [2090 AHr/kg]
Seabed Mud Capacity @ 5°C	950 AHr/lb [2090 AHr/kg]	Variable (3)

1. Recommended number to use when designing CP systems.
2. Recommended number to use when designing CP systems for offshore pipelines using bracelet or sub-bottom anode systems.
3. Activation can be a problem with chemistries at extremes of specification in cold water.

Overall weights and dimensions*

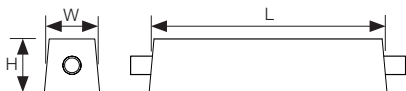
	(When using 325 lb anodes)
Dimensions (W x D x H)	282" x 50" x 78" [7163 x 1270 x 1982 mm]
Weight (Air)	4225 lb [1920 kg]
Weight (Water)	3347 lb [1518 kg]

*Excluding RetroClamp and connection cable

Anodes (Item 4)

Deepwater currently offers 325 lb anodes on the RetroPod LP.

Net weight	325 lb [148 kg]
Gross weight	410 lb [186 kg]
Dimensions (L x W x H)	96" x 5.5" x 5.9" [2438 x 140 x 150 mm]
Core	2" Sch 80 pipe
Quantity	4



Frame (Item 1)

Steel grade ASTM A53 [ASTM A106]
ASTM A36 [EN 10025 S355]

Welding All welding conducted in accordance with Steel Structural Welding Code – AWS D1/D1.1M:2006 [EEMUA 158]

Lifting (Item 2) 1.125" [28.5 mm] Padeye

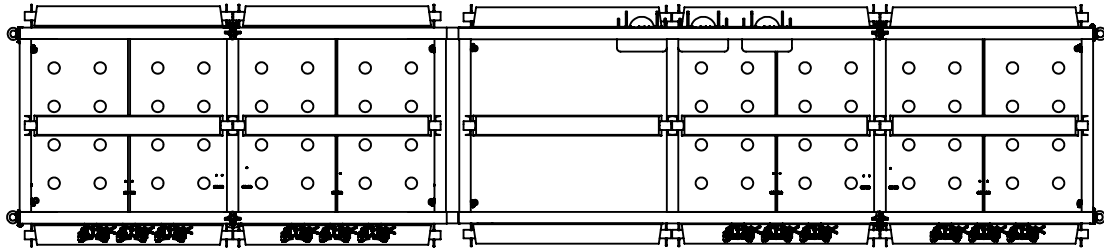
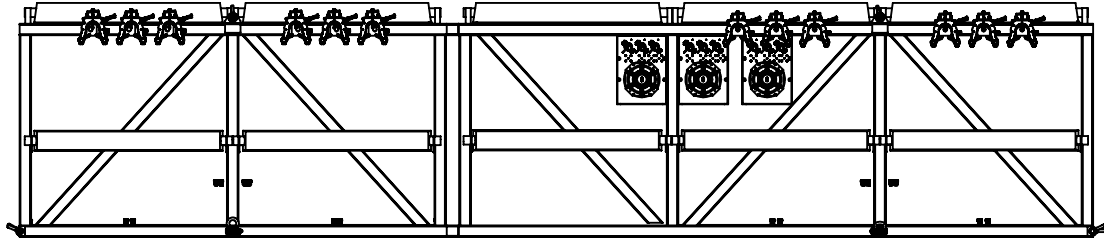
Connection details

RetroPod LP (Item 3) 2 x Ø 1/2" [M12] Stud-welded to frame

Structure RetroClamp (See RetroClamp technical datasheet). Quantity as per requirements, typically 1 per RetroPod.

Cable 4/0 AWG [~107 mm²], EPDM insulated, heavy-duty flexible cable
2 per RetroClamp
5/8" wire rope clips

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