

RETROPOD™

General

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

Note: This configuration is not recommended for use in water depths less than 160 ft [50 m].

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]

Gravity base (Item 2) Provided by RetroMat (see RetroMat technical datasheet)
 16 blocks,
 Block size - 20" x 20" x 12"
 [500 x 500 x 300 mm]
 Block volume - 1.5 ft³ [0.042 m³]
 concrete blocks only

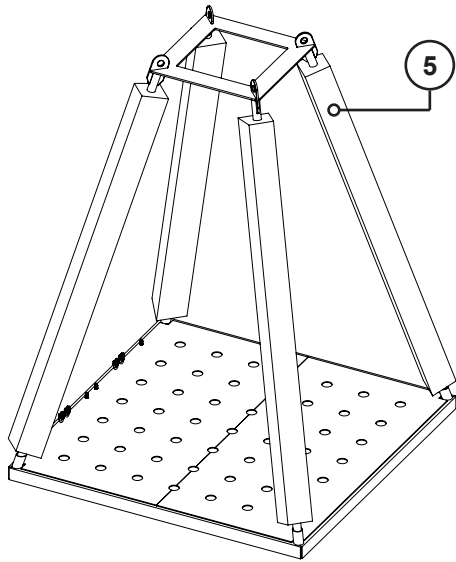
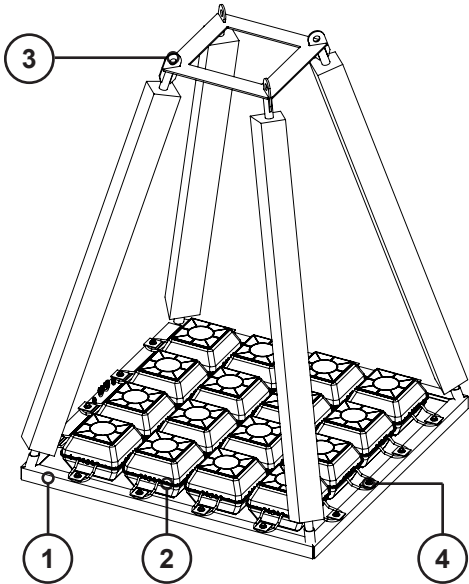
Lifting (Item 3) 1/2" [12.7 mm] Padeye

Connection details (Item 4)

RetroPod 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



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Deepwater offers four standard dimensions of anode for the RetroPod. The anode size is selected based on design life.



Net weight	285 lb [129 kg]	325 lb [148 kg]	540 lb [245 kg]	725 lb [329 kg]
Gross weight	360 lb [163 kg]	410 lb [186 kg]	625 lb [284 kg]	850 lb [386 kg]
Dimensions (L x W x H)	120" x 5.25" x 5.5" [2438 x 133 x 140 mm]	120" x 5.5" x 5.9" [2438 x 140 x 150 mm]	—	—
Core	2" Sch 80 pipe	2" Sch 80 pipe	2" Sch 80 pipe	2" Sch 160 pipe
Quantity	4	4	4	4

DEEPWATER

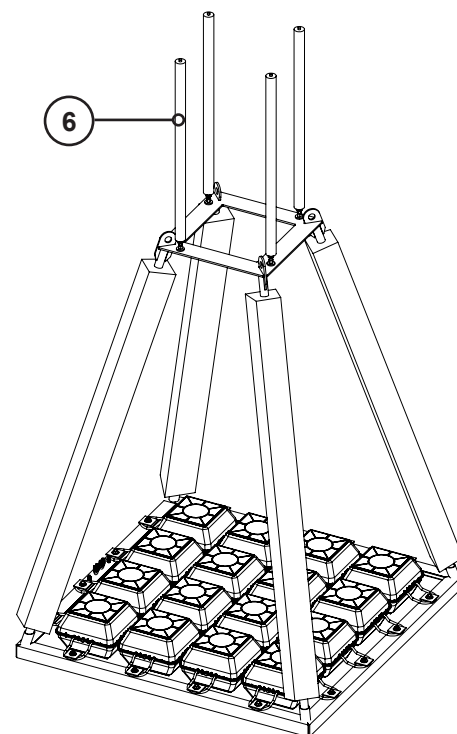
Overall weights & dimensions*

	(When using 325 lb anodes)	(When using 725 lb anodes)
Dimensions (W x D x H)	96" x 96" x 140" [2440 x 2440 x 3560 mm]	96" x 96" x 140" [2440 x 2440 x 3560 mm]
Weight (Air)	6050 lb [2750 kg]	7650 lb [3470 kg]
Weight (Water)	3800 lb [1730 kg]	4550 lb [2070 kg]

*Excluding RetroClamp, connection cable and polarization booster anodes

Polarization booster anodes - option (Item 6)

Description	If required, four small booster anodes can be added to the RetroPod for a structure that has lost all cathodic protection. The additional upper anode array provides a 15% current boost for the first 2-3 months to quickly re-establish cathodic polarization.
Net weight	40 lb [18 kg]
Gross weight	48 lb [21.5 kg]
Dimensions	Ø 3" x 60" [Ø 75 mm x 1525 mm]
Core	3/4" x 62" [19 mm x 1575 mm] Stud
Quantity	4



Anode composition / electrical properties

Description	RetroPod 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)	(-) 1.05 V vs Ag/AgCl	(-) 1.05 V vs Ag/AgCl
Seawater capacity @ 25°C	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

