



# Posidonia

mooring and towing marine equipment

**Posidonia's experience** started **before the second world war**, under the name of '**Neptunia**', recycling spares from the shipbreaking industry, like pumps, shafts, propellers, boilers, anchors, chains, booms and derricks. In the 60's **Posidonia** developed the offshore activity by projecting, manufacturing and installing mooring buoy fields for Italian



and international oil terminals; since second hand chains and anchors were still used, a retesting facility with a 500 ton testing bench was set up. The same testing bench is still the most powerful of the Mediterranean, approved by the major classification companies: American Bureau of Shipping, Bureau Veritas, Det Norske Veritas, Germanischer Lloyd, Lloyd's Register of Shipping, RINA etc... .



Nowadays Posidonia concentrates on designing, prototyping, testing and manufacturing mooring and towing equipment like high holding power anchors, super high holding power anchors, chain stoppers, smit brackets, bollards, emergency towing systems

and quick release hooks, for the shipping, military and yacht industry, and are also re sellers of all types of chains and shackles.



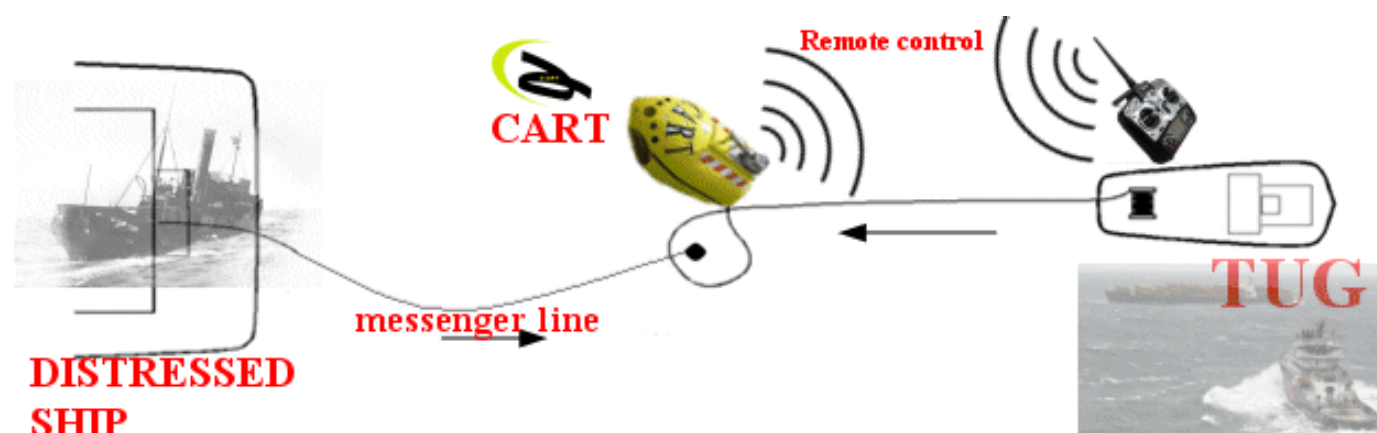


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Posidonia coordinated the European Research Project for emergency towing at sea as EC CART-285878-FP7-SME-2011-1 Cooperative Autonomous Robotic Towing system. C-ART proposes a new concept for salvage operations of distressed ships at sea. In particular, the proposal focuses on the high risk operation of linking the emergency towing system of distressed ships to towing vessels.

The proposed concept, based on the development of cooperative robotic technologies able to (semi-)automatically execute the manoeuvre of recuperating the towing system, will be able to optimise the operations for safeguarding the environment, typically preventing oil pollution at sea, while minimising the risk for human life.



Posidonia is a manufacturer, it is a fourth generation family business, its competitors are Dutch, German, Chinese and New Zealanders. Part of the staff are working on research and development activity full time, as the main attractive, interesting market comes from non standard products that need to be customized and integrated with new solutions.

That's the reason why the company is very often involved in new matters, especially in yacht and military markets where the target sometimes may not be so easy to reach because the request from the final user can be very complex.

Posidonia in 1982 was one of the first companies to be approved by Lloyd's register for HHP welded anchors.

In 1996 it was one of the first to be approved by all shipping registers for its Emergency Towing System (new IMO regulations). From 2005 most of the products such as Bollards, chocks and pedestal rollers are fully approved by most of the shipping registers with clear identification of the Safety Working Load that comes from the latest OCIMF and IMO regulations related to safety on ships and safety of the environment, so that instead of installing heavy equipment that comes from OLD industrial standards such as JIS, NORSE, DIN, GOST etc you can save space and weight by using Deck Equipment that comes from Posidonia's Standard.







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## Bollards

### Double Bollards



- Double bollards in accordance to IMO 1175 regulation with SWL from 18 up to 228 tons for standard temperatures and also for - 45° ,
- can be supplied with different heights and with one or two rollers installed on the top of the pipe(s)

### Cruciform bollards

- For standard temperatures and also for - 45° ,
- can be supplied with different heights and SWL up to 100 tons

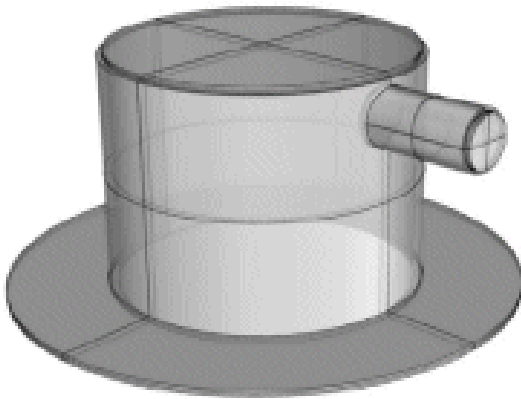


### Escort Tug Bollard (strong point)

- For standard temperatures and also for - 45° ,
- can be supplied with SWL 100 or 200 TONS

### Hidden double bollards

- For a particular purpose this special bollard can be installed below the deck and when it needs to be used the pipes ONLY come up manually .





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## Fairlead



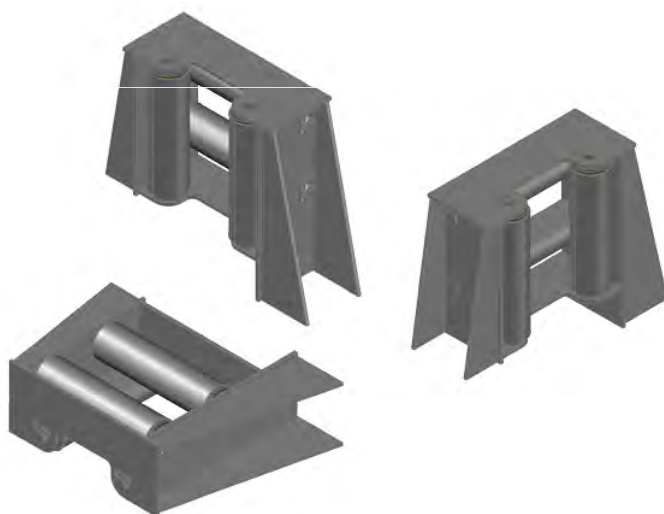
### Panama chock

- With SWL up to 350 tons, for decks and to be welded on bulwark.
- Triangular shaped AISI 316L for towing operations are available



### Roller fairlead

- From 2 up to 11 rollers available, with a different SWL up to 108 tons.
- As for panama chocks and double bollards, we can offer for low temperatures up to  $-45^{\circ}$  and also Made of special stainless steel DUPLEX to prevent corrosion, with special blushings made of orkot or thorplast and material self-lubricating



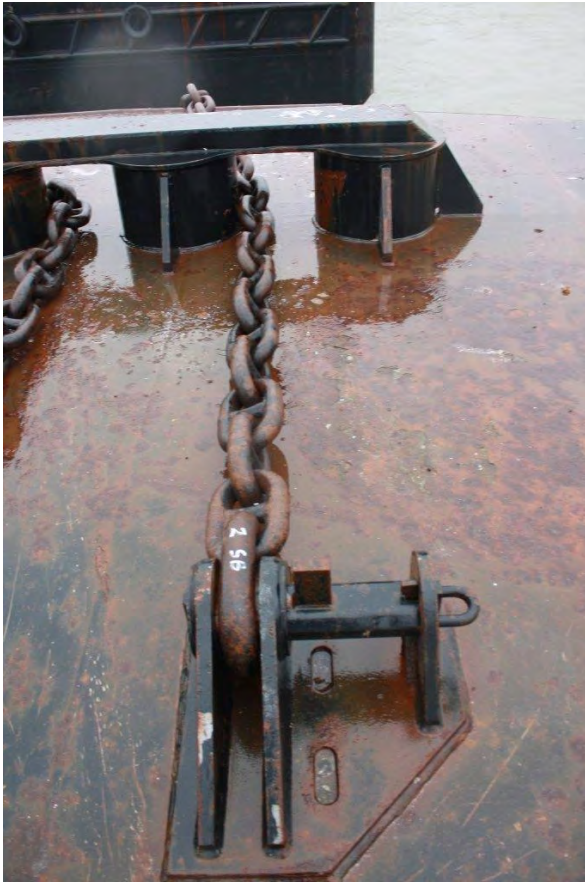




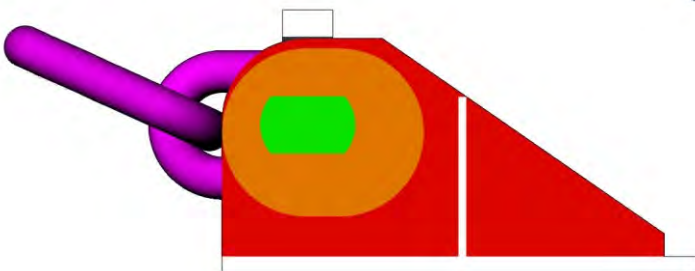
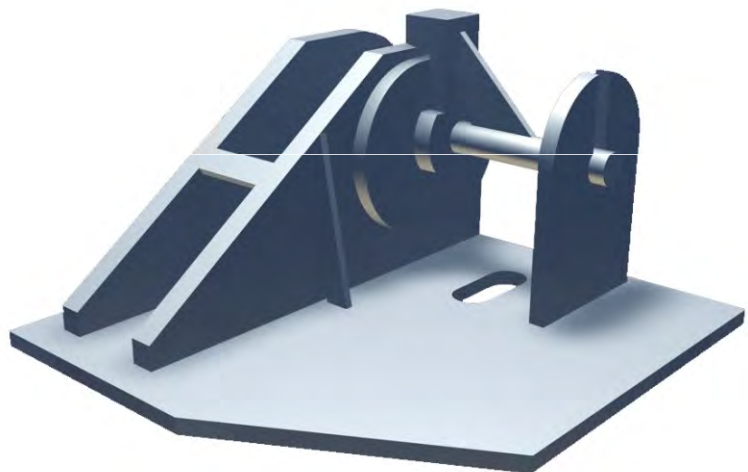
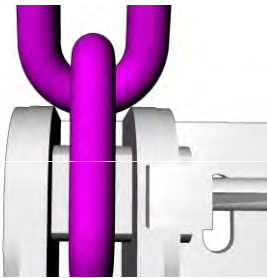
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## Smit Bracket



- Can be used in various towing situations. The bracket is welded on deck and is designed to withstand the breaking load of the chain being used.
- The bracket works using a large sliding pin made of high grade steel, which receives the towing chain and locks it quickly and securely into place. The main pin can hold at the most the towing chain's end link as indicated on the item description.
- Posidonia can offer different sizes in accordance to the required bollard pull, from 20 tons up to 500 tons and even more on request.
- After production and testing we issue a factory certificate, but on request it can be supplied with different certifications: LR, ABS, RINA, RMRS, RRR etc





# Posidonia

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## Vertical guide roller

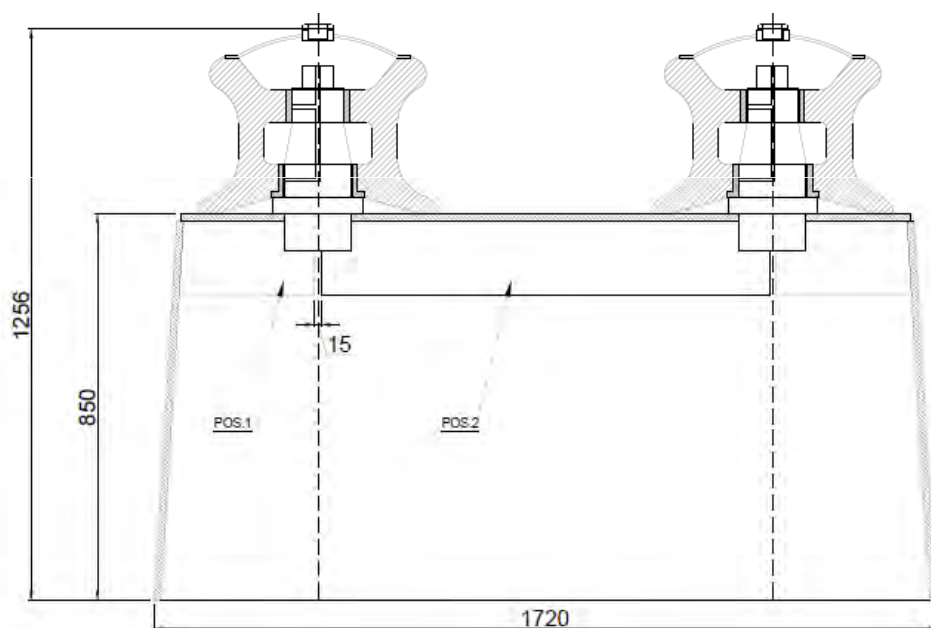


### Pedestal roller

-For mooring operations with a SWL up to 107 tons. As for roller fairleads we can offer for low temperatures up to  $-45^{\circ}$  with special blushings made of orkot or thorplast, material self-lubricating

### Pedestal roller with double base

-For mooring operations with a SWL up to 107 tons. As for roller fairleads we can offer for low temperature up to  $-45^{\circ}$  with special blushings made of orkot or thorplast, material self-lubricating





# Posidonia

mooring and towing marine equipment

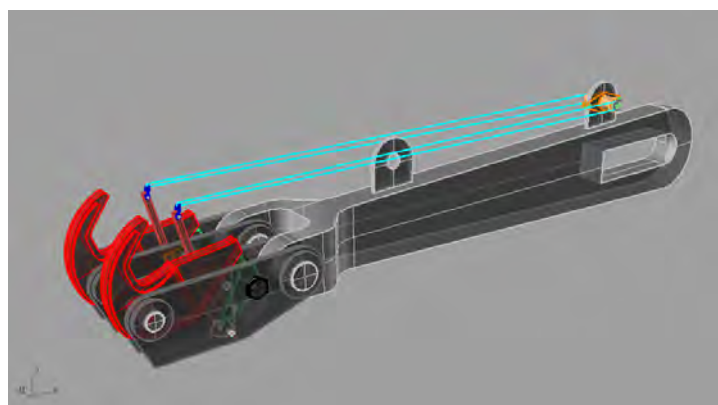


## Quick release hooks

Our quick release hooks let every towing operation be easy and safe.

We can offer quick release hooks with SWL 14 Kn up to 1275 Kn

Not only hooks for ships but also for buoy fields, projected and approved in accordance to the customers' requirements



## Chain stopper for mooring

-Suitable for stud link chain from diam 19 mm up to 54 mm GRADE 2 and 3

-Made of high tensile strength certified plates, NO cast steel components

-Withstand 80% of Chain Cable Breaing Load

-Available with Work certificate or class certificate



# Posidonia

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## Emergency Towing System

Hermes (aft) and Heracles (fwd) and Zeus (fwd) are the smallest, cheapest, easiest Emergency Towing Arrangements type approved by all major Shipping Registers and fully complying to the I.M.O. resolution MSC35(63) of 94.05.20 and O.C.I.M.F. recommendations.

The main components of the two models, 1.000 kN and 2.000 kN are :

- Pick-up gear
- Panama chock
- Strong point
- Deploying drum
- Bow arrangement

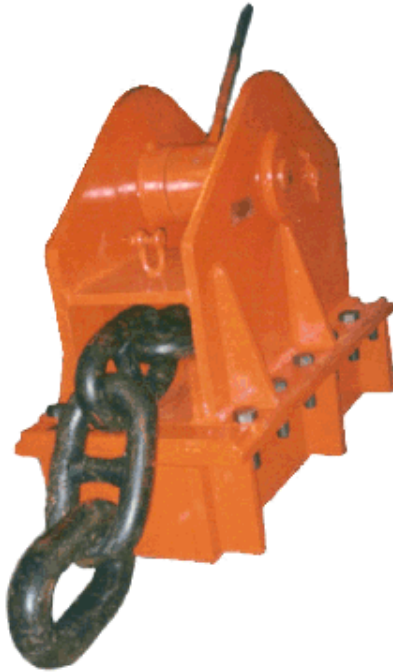






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mooring and towing marine equipment

## Bow arrangement for ETA and SPM



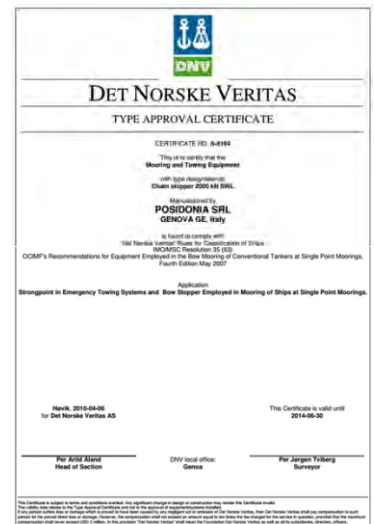
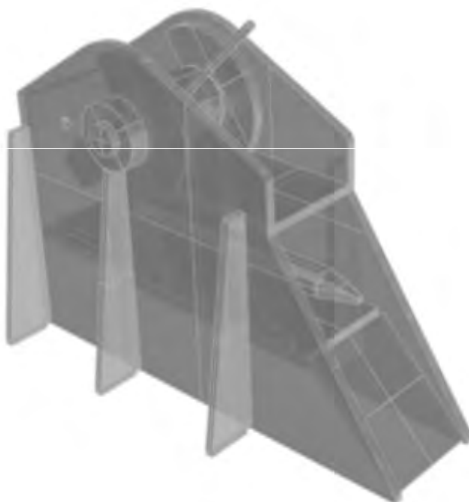
-For emergency towing SOLAS CHAPTER II – 1 reg 3-4 recalling IMO resolution MSC

-OCIMF recommendations for equipment used in the bow mooring of conventional tankers at Single Point Mooring, 4<sup>o</sup> edition published in 2007 .

-Available with separate seating and bolts or with integrated seating .

-3 different sizes : 200 Tons, 250 Tons and 350 Tons

- Approved by most important Shipping Register classification societies





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## Fenders



### Hollow Cylindrical Fenders

cylindrical fenders are the most common and versatile fenders used worldwide, high performance and very hard-wearing, used in all types of ports, easily installed and maintained, produced in any size up to 2m in diameter and manufactured by a wrapping process, with a moulded finish to complete the process



### Pneumatic Rubber fenders

Pneumatic Rubber Fenders use the elasticity of compressed air, which has no variation or deterioration in performance for years of usage. HPF provides more safety against excess loads by absorbing very high energy without any considerable increase in Reaction Force, like in other solid fenders. HPF keep floating on the waters surface and are adaptable to high and low tide levels; this facilitates low and uniform surface pressure at any time of berthing

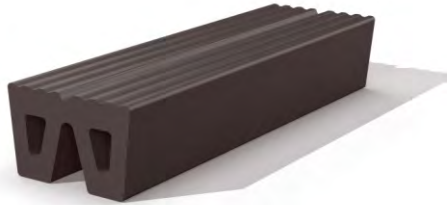




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## W Fenders



W fenders are made for the most extreme operating conditions. They have a unique open bore design which makes installation very simple. Their flexible "legs" allow W-fenders to be curved around most hull shapes

## DC Fenders



D-section extruded profiles are widely used as beltings on tugs and other work boats. DC and SC marine fenders have a circular bore for extra wall thickness and durability. All can be cut to length, drilled, angle cut or pre-curved as required

## DD Fenders



D-section extruded profiles are widely used as beltings on tugs and other work boats. DD and SD marine fenders have a D-bore for securing with a flat bar. All can be cut to length, drilled, angle cut or pre-curved as required.

## Key hole Fenders



Keyhole fenders are very strong and ideal for heavy-duty applications. There is a choice of grooved or flat face fenders depending on the required friction levels.





# Posidonia

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## Welded anchors HHP and SHHP Usually for yachts

Type  
Tipo

PTW+®

PTW®

HV

Special PLOW

Special BRUCE

Can't Find Your Anchor?  
No Problem, We Can  
Customize It As You Like.



Holding Power	Super High Holding Power	◆				
	High Holding Power		◆	◆	◆	◆
Balancing	NOT Balanced		◆	◆		
	Fully Balanced	◆	◆			
	From Kgs	17	12	16	50	50
Range	Up To Kgs	1500	26550	10800	5175	4950
	Work Certificate Class Certificate	◆	◆	◆	◆	◆
Execution	Painted	◆	◆	◆	only Rina and ABS	
	Hot Dip Galvanized	◆	◆	◆	◆	
Type Of Polish	Inox AISI 316 L	◆	◆	◆	◆	◆
	Inox Duplex	◆	◆	◆	◆	◆
	Manual	◆	◆	◆	◆	◆
	Mirror Polished	◆	◆	◆	◆	◆
	Electropolishing	◆	◆	◆	◆	◆



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## Cast steel anchors HHP and ordinary, usually for ships

Type  
Tipo

AC-14

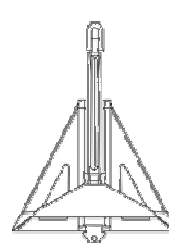
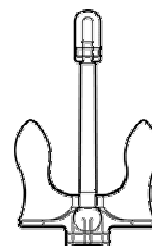
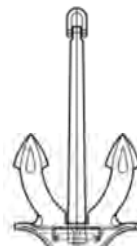
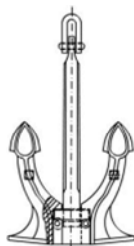
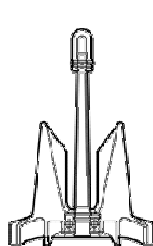
Spek

Hall

Baldr

Flipper Delta

Can't Find Your Anchor?  
No Problem, We Can  
Customize It As You Like.



<b>Holding Power</b>	Ordinary					
	High Holding Power					
<b>Balancing</b>	NOT Balanced					
	Fully Balanced					
<b>Range</b>	From Kgs	180	420	570	680	1000
	Up To Kgs	21750	48000	29000	24000	60000
<b>Certification</b>	Work Certificate					
	Class Certificate					
<b>Execution</b>	Painted					
	Hot Dip Galvanized					





# Posidonia

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## Chains and fittings

### Studless chains for Yachts



DIN 766, for barbotins, not for lifting purposes; DIN 764 Genovese link, for permanent moorings and fenders holding...

### Stud link chains for Ships



Hot dip galvanised, tarred and low magnetic stud link chains for ships...

### Studless chains for permanent mooring



Studless chains for long term mooring, R4, R5

### Accessories



Anchor shackles, Kenter shackles, Swivel shackles, swivel forerunners ecc

