THE SKREW… HELICOID SCREW ANCHOR FOR ALL PERMANENT MOORINGS

Sea Tech & Fun USA
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We have all along our coasts beautiful areas of permanent mooring. These areas host every year hundreds, even thousands of passing ships.

But this massive concentration causes a deterioration of the sea bottoms, with heavy consequences.

The local ecosystem is in danger.

These repetitive moorings inexorably damage our underwater heritage. Indeed, upon each mooring, the boat anchors slide, bump, and churn up the bottoms each time the boat moves (swinging, swell, wind, tide …), and in the end, they tear off the flora when the boats leave.

These damages are considerable and irreversible. Sub aquatic life is in great danger. Especially in the Mediterranean, where the Posidonia Oceanica is endangered (CF: posidonia protection decree, JO of 9/08/88.), as well as the proliferation of Taxifolia (Caulerpa Taxifolia) due to accidental spreading.

**Existing offer for permanent mooring**

The existing solutions of mooring on mooring buoys are not really acceptable. Actually, even if the area destroyed by the motions of the boat is limited, the mooring unit surface remains too important. Seabeds still suffer from too much extensive deterioration.
In conclusion:

In spite of the efforts carried out to use mooring buoys in areas of high mooring concentration, the deterioration of sea soil may be more localized but however much more damaging. And, even if permanent moorings are still more scattered, they are constantly in motion and renewed along the coast.

The seabed deterioration therefore remains obvious in both cases.

This is the reason why we offer a technical and ecological solution aiming to protect our underwater heritage.

The helicoids SKREW anchors.
SKREW anchors…Which benefits?

Sea Tech & Fun Europe launches the new generation of SKREW anchors, more efficient, an easier «screwing», a better holding:

Respect of the seabed ecology, unlike temporary anchors as they do not drag the bottom,

Insignificant environmental impact (very tiny surface occupied on the bottom.)

– No contact of the mooring line with the sea bottom

– The anchorage point shows through the bottom and does not stand in the way of the other mooring lines, fishing equipments.

– A simple anchorage, resistant with a long lifespan, due to its design in galvanized steel (made of hot dip galvanized steel),

The holding of helicoids anchors is the highest for a cheap price,

Helicoids anchors are perfectly adapted to various substratums: fallen rocks, various sands, Posidonia Océanica, mud…,
SKREW anchor is designed with precision:  
- **Concave shape shank**: higher resistance and easier penetration  
- **Beveled shank**: attacks the bottom to penetrate easily  
- **Large discs**: an excellent holding capacity in bottoms  
- **Beveled Discs**: easier penetration

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**Concave and bevelled shank**

**Large bevelled discs**

**Satisfaction guaranteed**

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Installation of a SKREW permanent mooring

**Overviews:**
The installation of a permanent SKREW mooring must respect the local Legislation concerning the **installation of mooring buoy.**
- It should not obstruct the access to the other existing mooring buoy
- It should not obstruct or endanger the circulation of other ships or of fishing
- It should not cause deterioration of sea-beds or marine life.

**Mooring principle of a SKREW:**
The SKREW anchor does not lie on the bottom; it gets into the ground vertically until it perfectly shows through. The ground’s mechanical resistance determines the kind of anchor and its size. Before installing it, it is therefore necessary to define the ground (the more solid it is, the higher the holding). Whichever the orientation of the load, this type of helicoïdal anchors is the only one to accept a very high vertical and horizontal effort.

**Installation of a SKREW anchor:**
For its installation, as well as for its removal, the SKREW anchor does not necessarily require important equipment or human means. Depending on the height of the water, the ground consistency, and your diving equipment, you can screw the SKREW anchor in the bottom with a tube going through the ring, while screwing the anchor. If necessary, get help from a professional diving team equipped with an adapted hydraulic tool (Skrew-Matic).
SKREW, Choose your Model!

SKREW, a complete range which answers all requirements and needs:

- **Jet skis**: Skrew Jet 20 and 30
- **Boats**: Skrew 20 and 130 (a reach of 1300 cm²)
- **Diving Clubs or diving spots**
- **Fish Farming**
- **Floating Docks**
- **All needs of permanent mooring.**
SKREW anchors for every need:

<table>
<thead>
<tr>
<th>SKREW MODELS</th>
<th>LENGTH OF THE SHANK</th>
<th>DIAMETER OF THE SHANK (mm)</th>
<th>NUMBER OF DISCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODEL 20 (200 cm&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>50 cm</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>MODEL 30 (310 cm&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>50 cm</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>MODEL 40 (400 cm&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>75 cm</td>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td>MODEL 50 (500 cm&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>75 cm</td>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td>MODEL 60 (600 cm&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>140 cm</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>MODEL 80 (800 cm&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>140 cm</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>MODEL 100 (980 cm&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>140 cm</td>
<td>60</td>
<td>2</td>
</tr>
<tr>
<td>MODEL 130 (1300 cm&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>140 cm</td>
<td>60</td>
<td>3</td>
</tr>
</tbody>
</table>
Mooring on one or multiple SKREW

Even with an anchor able to bear several times the strength generated by a cyclone, it is essential to take into account all the mooring line’s components. The chain, the swivel, the shackle, the hawser and even the fastening devices at the level of the boat’s bridge.

If there is enough space available, the primary line made of heavy chain will have to be 1,5 times higher than the highest waters. The second chain of smaller diameter or the corresponding cable of equal length will have to be once the height of the water. It will be fixed to the first one by a strong swivel.

A buoy is fixed on the screw anchor, so that it does not deteriorate the marine ecosystem.

Foot-note: The chain must be able to go through the middle of the buoy or be connected to a crossing axis, so that it does not create a weak point.

A warp will then be fixed at the tip of the small chain, on the side of the buoy. Its length must be sufficient so that it can be fixed to the mooring blocks of the boat -approximately 2,5 times the height of the boat’s freeboard. If necessary, plan on an anti-rubbing device at the level of the boat’s rail.

Foot-note: these suggestions do not take into account the possible material losses after numerous seasons in a corrosive environment. Also avoid as much as possible to connect different metals between each other to prevent from electro galvanic problems. Stainless steel shows problems when permanently immersed in salted water. Therefore steel galvanized in a zinc dip is better.
In the event of the installation of a SKREW anchor in an ecologically sensitive environment, it is recommended to fix a buoy of sufficient buoyancy on the large primary chain, so that the chain cannot rub on the sea bottoms. The buoy will have to be maintained less than 2.50 m from the surface of the water at low tide.
Mooring on one SKREW only: (for small or middle units)

Simple mooring: one anchor on the mother chain

Mooring with only one Skrew Anchor.
Mooring on multiple SKREW: (for big units)

Mooring in the shape of a star: three anchors united by a mother chain

If the ship’s characteristics justify it, or if the sea bottoms’ holding is poor, it is recommended to install several anchors in conjunction in order to gain the necessary holding.

Mooring with three Skrew anchors