

Moorsafe anchors for safer mooring



The patented Moorsafe anchor

The Moorsafe anchor provides safe mooring for all types of floating constructions from pleasure boat - marinas to large pontoon - harbours, from small boats to large ships, from recreation platforms to fish farms etc.

The recent years of installations and tests show that Moorsafe anchors can provide a competitive and safer mooring alternative even to the offshore oil industry.

Moorsafe AB
www.moorsafe.com

History – Background

As far as 4000 years back in time stones were used as anchors. The deadweight principle of mooring is still in use as for example in concrete blocks as fixed mooring points for buoys and floating piers. The strength of the mooring is generated by the weight of the deadweight anchor and the friction against the seabed. Huge weights are necessary as the weight of the concrete is reduced by more than 40% when submerged in water.

When iron was introduced as a material for anchors, teeth or flukes were built on the anchors in order to obtain a stronger contact with the seabed. Many different anchors have been designed and manufactured over the years, but only a few has been successful.

The traditional stock anchors have been in use since the 17th century and are both stable and reliable, but are difficult to handle and store and have low holding power.

During the 19th century the stockless anchors became popular and are still, in different variations the most used ship anchor. Stockless anchors are easy to handle and store but they often have a relatively low holding power, in addition to being somewhat unstable. When they turn sideways with the anchor flukes upwards they greatly reduce their holding power. Ships do not normally trust the stockless anchor's holding power, but rely mostly on the holding power from a long and heavy chain.

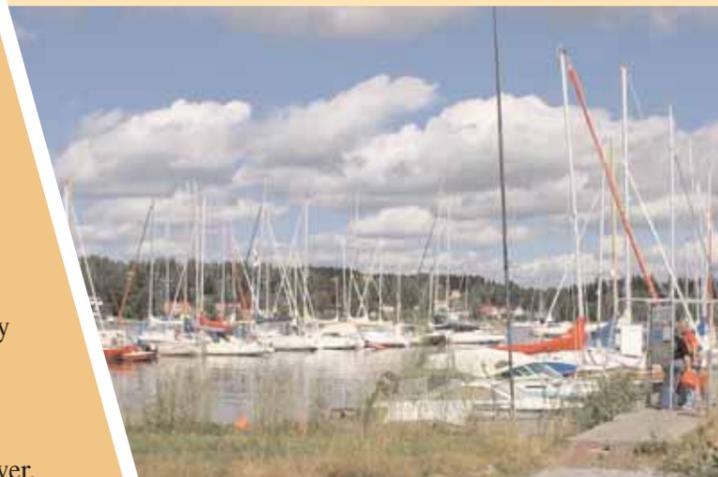
During the later decades different anchors have been constructed with stabilizers at the back end of the anchor. These anchors have a greater possibility to penetrate down into the seabed, but the stabilizers can sometimes be inefficient especially when there is a sideways pull on the anchor.

Moorsafe - the new concept in anchors

More than 30 years of experience as designer, inventor, boat owner and owner of a boat fitting shop, together with input from hundreds of customers with both positive and negative views on different anchor types, has resulted in the invention of a wholly new anchor concept.

Moorsafe anchors are totally self-stabilizing in its design. There are no added on stabilizers preventing the possibility of deep and easy penetration of the seabed. Moorsafe anchors are stable even when subject to strong sideway force. The Moorsafe design makes use of the opposing power from the seabed sediment to stabilize the construction. The Moorsafe anchor can therefore be produced using an extremely slender shape which again makes penetration into the seabed easier.

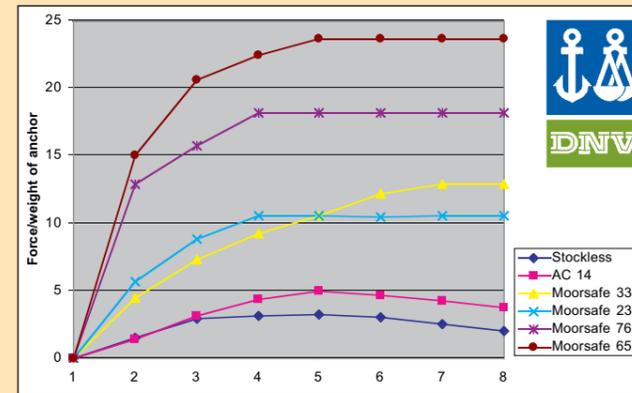
We have chosen not to co-operate with any of the large anchor producers and have consequently started with smaller mooring projects in order to obtain more practical experience by handling and installing the Moorsafe anchors. During the last years we have installed more than 150 Moorsafe anchors with very good results which even surpass our own high expectations.



Pleasureboat pontoon-marina, TBK Åkersberga Sweden, safely moored with Moorsafe anchors.



Moorsafe anchors ready for installation in Båstad, Sweden.



Test in Compacted sand.

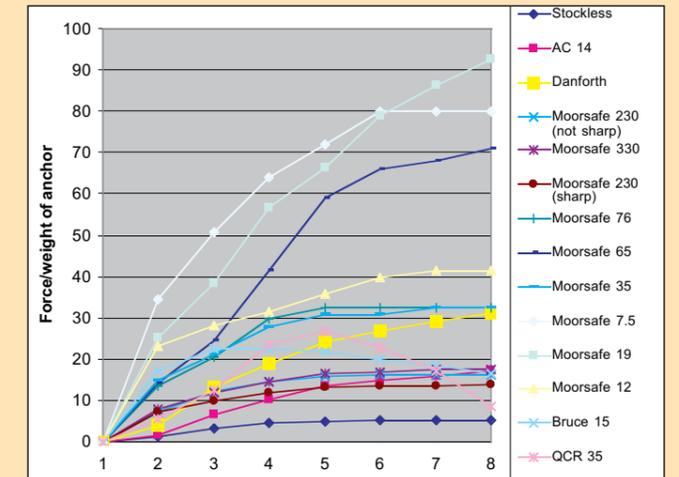
We have engaged Det Norske Veritas to supervise the tests of Moorsafe anchors. The tests, that started 2004-07-28, show that Moorsafe anchors have excellent performance. The tests will continue and shall be conducted in at least 3 different types of seabed which is required for certification of anchors.



Moorsafe anchors ready for test.



Sideway pull on a Moorsafe anchor showing the stability.



Test in prepared soft sand.



Moorsafe 330, penetration after about half a meter pull.



Track after, in the soil penetrated, Moorsafe 230.

Moorsafe anchors are self-stabilizing in its design. A test by pulling a Moorsafe anchor sideways was carried out and from a final submerged condition the anchor was turning smoothly without any tendency to tip over. The Moorsafe anchors are easy to handle, always lands in the right position when lowered to the seabed and penetrates the seabed extremely quickly with a very high holding capacity.

All boats and other floating installations depend on a secure mooring



The pictures show another type of the patented Moorsafe anchor concept, which is designed to be used as a ship anchor. Picture 1 to 6 show, that even if the wind changes direction by 180° the Moorsafe ship anchor will turn around and correct itself and quickly penetrate the seabed again.

Moorsafe AB
www.moorsafe.com

Båthamnsvägen 1, SE-184 40 Åkersberga, Sweden
Phone: +46 8 540 640 25 Fax: +46 8 540 657 65
E-mail: info@moorsafe.com